CUMULATIVE AUTHOR INDEX
Journal of Medical Entomology
Volume 48, 2011

A

Acevedo, G. R., 828
Adak, T., 395
Ahmad, A., 1236
Ahmad, A. H., 1236
Ahmad, A.M.A., 717
Ahmad, H., 1236
Ahn, Y.-J., 61, 366
Alcaide, M., 956
Alejandre-Aguilar, R., 705
Alencar, J., 223
Alexandre, M., 351
Ali, A., 836
Allan, B. F., 708
Allan, S. A., 533
Allene, X., 351
Almeida, J. C., 753
Almond, G. W., 876
Alto, B. W., 29, 232, 243, 429
Alvarez, A. H., 822
Alves, A.-M., 1174
Alves, C. L., 372
Amador, M., 701
Amelotti, I., 1167
Anaya, L., 418
Ancca-Juarez, J., 929
Anda, P., 13
Anderson, J. R., 389
Andrade, A. J., 39
Andriantsoanirina, V., 73
Andriessen, R., 1039
Angelini, P., 1214
Aranda, C. A., 418
Araujo, R. N., 372
Arthur, B. J., 941
Asavadachanukorn, P., 1023
Astete, H., 45
Austin, J. W., 937
Azari-Hamidian, S., 717
Azeredo-Espin, A.M.L.D., 280
Aziz, A. T., 1236

B

Baker, R. B., 876
Baldet, T., 351
Baldet, Thierry, 813
Balenghien, T., 351, 1076
Bales, A. A., 389
Bandivdekar, R., 504
Barandika, J. F., 13
Barbieri, K., 39
Barrera, R., 701, 1095
Bartholomay, L. C., 1031
Bartlett-Healy, K., 712
Bastic, V., 615
Batista-Pereira, L. G., 489
Bearden, S. W., 411
Beati, L., 418, 485
Beaty, B. J., 644
Becnel, J. J., 546
Behle, R. W., 322, 1120
Bellini, R., 1214
Beltrán, G., 577
Benbow, M. E., 1112
Benedict, M. Q., 296
Bent, S. J., 422
Berdjane, Z., 73
Berge, N. M., 1174
Bernatowicz, J. A., 1
Bernier, U. R., 533
Berrada, Z. L., 461
Bhakdeenuan, P., 1023
Bharadwaj, A., 1120
Bicout, D. J., 1076
Billeter, S. A., 1257
Blitvich, B. J., 1031
Bolker, B., 974
Bolling, B. G., 1031
Boots, M., 1236
Borba, C., 351
Borrini-Mayori, K., 929
Bortel, W. V., 924
Bosselmann, R., 813
Botelho, H. A., 764
Boucias, D. G., 1128
Boulanger, D., 691
Bouvresse, S., 73
Bowers, D. F., 1226
Brault, A. C., 1031
Brelsfoard, C. L., 1008
Bretas, J.A.C., 489
Brey, C. W., 479
Briggs, C. J., 20
Brinkerhoff, R. J., 422
Britch, S. C., 1145
Brown, D. A., 398
Brown, G. C., 1103
Brown, J. E., 1095
Brunner, J. L., 860
Bugajski, K. N., 1231
Burkett, D. A., 538, 584
Burkett-Cadena, N. D., 167, 967
Burkhalter, K. L., 656
Burri, C., 615
Bursali, A., 85
Bush, S. E., 67

C

Cáceres, A. G., 146, 1257
Caci, J., 584
Caillouët, K. A., 1091, 1210
Calder, L., 101
Calderón-Fernández, G. M., 262
Campbell, S. R., 867
Cantrell, C. L., 836
Carbajo, A. E., 991
Cardo, M. V., 991
Carpenter, S., 351
Carrieri, M., 1214
Carvalho, A.F.U., 846
Carvalho, G.M.D.L., 764
Casado-Nistal, M. A., 13
Casanova, C., 39
Castillo-Herrera, G., 822
Castro, M. B., 852
Cataló, S. S., 1167
Cator, L. J., 941
Cesa, K., 1091
Champagne, D. E., 806
Chandre, F., 952
Chang, K.-S., 61, 405
Chauve, C., 788
Chelbi, I., 518
Chen, J., 546
Cheney, L., 860
Chepchieng, C., 1145
Chompoosri, J., 1023
Chong, S.-T., 1250
Chosidow, O., 73
Chuang, T.-W., 669, 1047
Clark, G. G., 533, 546
Clark, J. M., 61, 1174
Clark, J. W., 1145, 1197
Clayton, D. H., 67
Clercq, E.M.D., 924
Colacicco-Mayhugh, M. G., 538
Coleman, R., 628
Coleman, R. E., 538, 584
Colín-Martínez, H., 140
Coosemans, M., 924
Corn, J. L., 94
Cornelie, S., 691
Coronado, A., 280
Cortez, M. R., 828
Costa, J., 496
Costanzo, K. S., 29, 243, 429
Cueto, G. M., 828
Cunningham, J., 461
Cupolillo, E., 1016
Cushing, R., 584
Czajkowski, T., 813

D

Dame, J., 485
Damiens, D., 924
Daniels, T. J., 337
Dargatz, D. A., 634
Darriet, F., 952

Das, S., 291
Dasch, G. A., 418
Davé, K., 628
Davé, S., 628
Davey, R. B., 314, 358, 770
Davies, S. J., 154
Day, J. F., 1226
Debboun, M., 1023
Dekoninck, W., 924
Delgadillo-Aceves, I. N., 705
Demari-Silva, B., 272
Dennett, J. A., 584
Deunff, J., 758
Dieng, H., 1236
Dietrich, G., 884
Diuk-Wasser, M. A., 422
Dobson, S. L., 1008
Dolan, M. C., 884
Donohue, A. M., 852
Dorn, P. L., 1091
Dorn, W., 441
Doucoure, S., 691
Doyle, M. S., 656
Dua, V. K., 395
Duke, S. O., 836
Dundar, E., 85
Duquesne, S., 554
Durand, R., 73
Dyer, M. C., 327

E

Ebsworth, P., 437
Edwards, K. T., 687
Eiras, A. E., 39, 489
Eisen, L., 644
Eisen, R. J., 411, 884
Ejiri, H., 600, 904
Ekici, M., 85
El-Hossary, S. S., 1057
Endersby, N. M., 999
Eremeeva, M. E., 418
Eritja, R., 956
Eubanks, M. D., 167, 967
Evans, B. P., 1250
Evans, H. L., 479

F

Falco, R. C., 337
Falqueto, A., 1016
Fang, C.-T., 445
Farajollahi, A., 479
Farenhorst, M., 305
Farfán-Ale, J. A., 644
Farias, D. F., 846
Farooq, M., 1145
Fawaz, E. Y., 1057
Fereira, Z. M., 223
Figuerola, J., 956
Filho, J.D.A., 764
Fleer, K. A., 101
Flores-Fernandez, J. M., 822
Florin, D. A., 154
Floris, I., 345
Flor-Weiler, L. B., 322, 1120
Foley, J. E., 101
Foley, P., 101
Folsom-O'keefe, C. M., 422
Foppa, M., 1210
Foradori, M. J., 382
Foran, D. R., 1062
Forschler, B. T., 806
Fouque, F., 1076
Frances, S. P., 334
Franke, J., 441, 651
Freeman, J. M., 314
Freitas, S.P.C., 496
Fresia, P., 280
Fritz, A. H., 508
Fritz, G. N., 508
Fuseini, G., 437

G

Gage, K. L., 411
Ganesan, K., 1160
García-Estrada, C., 140
Garcia-Maruniak, A., 1128
García-Pérez, A. L., 13
García-Rejón, J. E., 644
Garros, C., 351
Garud, A., 1160
Garvin, M. C., 896
Gaugler, R., 476, 479, 526
Gautam, A., 1160
Gaver-Wainwright, M. M., 382
Geden, C., 1128
Geevarghese, G., 504
George, J. E., 358
Germano, M., 828
Gern, L., 615
Gerry, A. C., 188
Giannotti, E., 1069
Gilles, J.R.L., 296
Girotti, J. R., 262
Goddard, J., 687
Godoy, W.A.C., 1069
Goethert, H. K., 461
Goldberg, Laura, 577
Goldberg, Lucila, 577
Golden, F. V., 533
Gonçalves, T.C.M., 496
Gontijo, N. F., 372
Gonzales-Hidalgo, J., 1257
González, M. L., 327
Gordon, S. W., 1145
Gorla, D. E., 1167
Graham, C. B., 411
Graminha, M.A.S., 39
Grant-Guillén, Y., 705
Gray, K. M., 167
Green, A. L., 634
Greengarten, P. J., 337
Grieco, J. P., 538, 1250
Grimaldi, G., 1016
Grootaert, P., 924
Grout, L., 691
Guimarães, A., 223
Gunasekaran, K., 561
Gunther, D. E., 476

H

Halbritter, D. A., 251
Hald, B., 1202
Hall, P. B., 1
Hamilton, G. C., 518, 712
Hanafi, H. A., 1057
Hance, T., 924
Handberg, K. J., 608
Hanson, B., 94
Hara, T., 600
Harbison, J. E., 1136
Harburguer, L., 577
Hardev, P., 395
Harding, K., 867
Harley, D., 453
Harrington, L. C., 202, 941
Hazra, R. K., 291
Healy, S. P., 712
Helinski, M.E.H., 202
Hendrickx, F., 924
Hendrickx, G., 924
Herrero, M. V., 634
Hildebrandt, A., 441, 651
Hildreth, M. B., 669
Hilhorst, A., 305
Hiwat, H., 1039
Hoel, D. F., 1057
Hoffmann, A. A., 914, 999
Hogsette, J. A., 656
Holmes, J., 411
Holt, J. A., 1247
Hooper, A. M., 489
Hopkins, G., 584
Howard, J. J., 196, 909
Hu, R., 1136
Huang, C.-G., 445
Huang, J.-H., 445
Hughes, G. L., 76
Hurtado, A., 13
Hutchings, R.S.G., 173
Hutchings, R. W., 173

I

Ibáñez-Bernal, S., 146
Ii, J.W.D., 934
Imura, T., 600
Infante-Rodríguez, D. A., 570
Izri, A., 73

J

Jacups, S. P., 453
Jambulingam, P., 561
Jatav, P. C., 1160
Jennings, B. T., 584
Johnson, D. W., 1103
Johnson, P. H, 914, 999
Jones, S., 437

Jones, S. C., 947
Jones, S. L., 67
Jonjang, N., 1023
Jørgensen, P. H., 608
Joyce, J. D., 389
Juárez, M. P., 262
Juste, R. A., 13

K

Kahn, W., 395
Kammlah, D. M., 770
Kar, S. K., 291
Karpathy, S. E., 418
Kaufman, P. E., 53
Kahn, W., 395
Kearney, M. R., 914
Keating, J. A., 929
Keep, L., 154
Keesing, F., 860
Kelley, K. L., 852
Kelly, P. J., 485
Kengluecha, A., 1250
Kensinger, B. J., 708
Kesavaraju, B., 429, 479, 526
Keskin, A., 85
Khan, D. F., 526
Khan, I., 836
Kheir, S. M., 717
Khumsawads, C., 1023
Khuriji, M. A., 717
Killilea, M., 860
Kim, B.-S., 405
Kim, G.-H., 405
Kim, H. C., 1250
Kim, H.-K., 366
Kim, J., 405
Kim, K. S., 600, 904
Kim, M.-S., 1250
Kim, S.-I., 61
Kioko, E., 1197
Kirsch, P., 1057
Klavons, J. A., 314
Klein, T. A., 1250
Kline, D. L., 533, 546
Knepper, R. G., 1047
Knight, D., 437
Knols, B.G.J., 305
Koehler, P. G., 934
Koenraadt, C.J.M., 1039
Koka, H., 1197
Komar, N., 701
Kosoy, M. Y., 1257
Krajacich, B. J., 891
Krämer, A., 651
Kramer, L. D., 909
Kristensen, K., 1202
Kroeger, I., 554
Krohn, A. R., 896
Kumar, A., 1160
Kumar, P., 1160
Kurta, A., 758
Kutyniok, M., 554
Kwon, H. W., 61

L

Lampman, R., 243
Lanpman, R. L., 29
Lantova, L., 985
Lavine, L. C., 382
Lawyer, P., 154
Lee, C.-Y., 797
Lee, J.-K., 1250
Lee, W.-J., 1250
Lees, R. S., 296
Lehnert, M. S., 934
Leite, A.C.R., 680
Leite, L.H.R., 680
Leite, V.H.R., 680
Leon, A.A.P.D., 314, 358
Levy, M. Z., 929
Lewis, A. J., 1112
Licastro, S., 577
Liess, M., 554
Lietze, V. U., 1128
Lima, G.P.G., 846
Limbaso, S., 1197
Linhares, A. X., 111
Linthicum, K. J., 334, 546, 1145
Lipnick, R., 154
Logiudice, K., 860
Lohmeyer, K. H., 314, 770
Lopes, C. M., 223
Lopez, J. E., 891
López-Uribe, M. P., 644
Lord, C. C., 974
Loroño-Pino, M. A., 644
Lounibos, L. P., 974
Lozano-Fuentes, S., 644
Lucas, H., 485
Lugo-Cervantes, E., 822
Luna-Caypo, D., 1257
Lutomiah, J. L., 1197
Lyra, M. L., 280

M

Macbeth, D., 418
Maccagnani, B., 1214
Macedo, P. A, 398, 852
Machado, L.K.A., 846
Maeder, G., 615
Magaud, A., 694
Mahan, S., 485
Mahapatra, N., 291
Makio, A., 1197
Malenke, J. R., 67
Mallavdani, U. V., 291
Maloney, K. M., 929
Mamidala, P., 947
Mandke, O., 504
Marai, N., 291
Marrelli, M. T., 272
Martínez-Ibarra, J. A., 705
Martinez-Velazquez, M., 822
Maruniak, J. E., 53, 1128
Masuh, H., 577
Masuoka, P., 1250
Mather, T. N., 327
Mathieu, B., 351
May, M. A., 770
Mayda, M., 628
McCoy, B. N., 891
McMeniman, C. J., 76
Meentemeyer, R., 20
Meer, R.K.V., 508
Mehrunnisa, A., 395
Meier, F., 441
Mello, R.P.D., 223
Mercado, G., 570
Mertins, J. W., 1, 94
Metzger, M. E., 1136
Miller, E. A., 896
Miller, N. J., 327
Miller, R. J., 314, 358
Mingmongkolchai, S., 1250
Minter, M., 1103
Mitola, M. A., 934
Mittapalli, O., 947
Moeller, J. J., 1247
Mogi, M., 212
Mohr, R. M., 188
Montalvo, T., 956
Montenieri, J. A., 411
Montgomery, M. J., 398
Moore, F. R., 896
Moore, J., 1210
Morais, S. M., 846
Morales-Malacara, J. B., 140
Morath, S. U., 337
Moretti, T.D.C., 1069
Morley, V. J., 896
Moro, C. V., 788
Morrison, A. C., 45
Mortenson, J. A., 1
Mouchet, F., 691
Mulla, M. S., 1023
Mullens, B. A., 188, 251
Muñoz, J., 956
Muñoz-Muñoz, F., 129
Murata, K., 600, 904
Musila, L., 1197
Muthoni, M., 1197
Muthukumaravel, S., 561
Mutisya, J., 1197
Muturi, E. J., 29, 243, 429

N

Najera-Vazquez, M.D.R., 644
Nanda, N., 395
Nasci, R. S., 656
Nascimento, M.F.A., 680
Nelms, B., 513
Ngere, F., 1145
Ngom, A., 691
Ngonga, D., 1145
Nicot, A., 694
Nielsen, A. A., 608

Nieves, E. L., 775
Nogueda-Torres, B., 705
Nogueira, J. R., 389
Noireau, F., 828
Norelus, H., 337
Novak, M. G., 852
Novelo-Gutierrez, R., 570

O

Obenauer, P. J., 1057
Ogden, N. H., 468
Olguin, H., 418
Oliver, J., 196, 909
Olmeda, S. A., 13
Olsen, C., 154
O'Neill, S. L., 76
Orihuela, P. S., 828
Ostfeld, R. S., 860
Ouedraogo, T.D.A., 813
Owen, J. C., 896

P

Padmanabha, H., 974
Pagès, N., 129
Pamo-Tito, D., 929
Pande, S., 504
Pandit, P., 504
Parida, S. K., 291
Park, H.-M., 405
Park, I.-K., 405
Parker, Z., 628
Patalas, E., 615
Pauliks, K., 651
Pechal, J. L., 118
Peixoto, A. A., 489
Pereira, M. H., 372
Pereira, R. M., 934
Petersen, J. M., 884
Phusup, Y., 1023
Picard, C. J., 1062
Picollo, M. I., 828
Piesman, J., 884
Pinto, M. C., 39
Pittman, K. E., 389
Pitzer, J. B., 53
Ploch, J., 584
Ponlawat, A., 941
Pound, J. M., 314, 770
Powell, J. R., 1095
Prakash, S., 1160
Previtali, A., 860
Price, D. C., 476
Putnam, J. L., 538, 584

Q

Qualls, W. A., 1226, 1247

R

Rabinovich, J. E., 775
Rainone, E. E., 327
Rajarapu, S. P., 947
Reese, S. M., 884
Reisen, W. K., 513
Remoue, F. J., 691
Richardson, K., 914
Rijk, M. D., 1039
Ritchie, S. A., 914, 999
Riveau, G., 691
Rivero, A., 694
Rocha, L.D.S., 1016
Rocha-Chávez, G., 705
Rochon, K., 876
Rock, A. N., 67
Roden, A. E., 806
Rodriquez, J. M., 634
Rogerie, F., 691
Romero, N., 1167
Rosario-Cruz, R., 822
Rowton, E., 154
Rubio, C., 974
Ruiu, L., 345

S

Saad, A. R., 797
Sabatier, P., 1076
Sahu, S. S., 561
Saito, K., 904
Saiyasombat, R., 1031
Salazar, R., 929
Salazar-Schettino, P. M., 705
Salceda, B., 418
Sallam, M. F., 717
Sallum, M.A.M., 173, 272
Samanta, L., 291
Samuelsen, H., 813
Sanford, M. R., 118
Sang, R. C., 1197
Sanogo, E., 813
Santos, C.B.D., 1016
Santos-Mallet, J. R., 496
Santos-Silva, M. M., 418
Satho, T., 1236
Sato, Y., 600, 904
Satta, A., 345
Savage, H. M., 656, 961
Sawanpanyalert, P., 1023
Schaffner, F., 924
Schall, J. J., 1183
Schmidtmann, E. T., 634
Schmoock, G., 651
Schnabel, D., 1197
Schotthoefer, A. M., 411
Schultz, G., 154
Schwan, T. G., 891
Scott, T. W., 45, 398
Seddon, C. C., 1231
Serra-Freire, N.M., 223, 753
Serrão, J. E., 496
Setier-Rio, M.-L., 351
Shaman, J., 867, 1189
Sheldon, S. W., 884
Sherwood, V., 584
Shimura, Y., 904
Shin, S.-C., 405
Shu, P.-Y., 445
Silva, D.G.D., 764
Silva, J.D.S., 223
Silva, M.C.E., 39
Silva, S.S.P., 753
Simondon, F., 691
Singh, O. P., 395
Siriyasatien, P., 1023
Sithiprasasna, R., 334
Skovgård, H., 608, 1202
Skovmand, O., 813
Smith, M. L., 1247
Snow, S., 94
Soares, B. M., 846
Soares, M. J., 489
Sokhna, C., 691
Soliban, S. M., 296
Solis, D. R., 1069
Somers, G., 1095
Soriguer, R. C., 956
Souza, C. M., 111
Souza, T. M., 846
Spiegel, C. N., 489
Spiegelman, C., 1062
Stafford, K. C., 322, 1120
Stanuszek, W. W., 1047
Stark, L., 896
Stockmarr, A., 608
Straube, E., 441, 651
Streby, H. M., 422
Strickman, D., 628
Strycharz, J. P., 1174
Svobodova, M., 985
Swei, A., 20
Swope, B. N., 656
Szalanski, A. L., 937
Szpila, K., 738

T

Takhampunya, R., 1250
Takken, W., 1039
Talavera, S., 129
Tao, W., 366
Tarone, A. M., 1062
Tawatsin, A., 1023
Tee, H.-S., 797
Tekin, S., 85
Telford, S. R., 461
Tenbroeck, S. H., 53
Thavara, U., 1023
Thiemann, T., 398, 513
Thioulouse, J., 788
Thomas, M. B., 305
Thyssen, P. J., 111, 1069
Toé, L. P., 813
Tomberlin, J. K., 118
Tripathy, A., 291
Tripodi, A. D., 937
Tsai, K.-H., 445
Tsao, K., 422
Tsuda, Y., 600, 904
Tucker, J. R., 852

Tuininga, A. R., 337
Turell, M. J., 628, 1197

U

Unnasch, T. R., 167, 967
Urdaz-Rodriguez, J., 485

V

Valim, M. P., 753
Vanroekel, D. L., 669
Varela-Stokes, A., 687
Valcarcel, F., 13
Vasconcelos, F.B.D., 764
Vassena, C., 828
Venail, R., 351
Venturelli, C., 1214
Versteirt, V., 924
Vesgueiro, F. T., 272
Vetter, S. M., 411
Vézilier, J., 694
Vezzani, D., 991
Viana, M. P., 846
Vijayakumar, T., 561
Vijayaraghavan, R., 1160
Villalobos, G., 705
Villet, M. H., 738
Viudes, G., 351
Volf, P., 985

W

Walker, E. D., 1047
Walker, T. W., 1145
Walton, T. E., 634
Wang, J., 468
Wang, M., 366
Wang, Z., 366
Watanabe, Y., 904
Watany, N., 1057
Watson, D. W., 876
Weeks, A. R., 999
Wesson, D. M., 1091, 1210
Whelan, P. I., 453
Whitaker, J. O., 758
White, G. S., 967
White, V. L., 999
White, W. H., 358
Wilkerson, R., 154
Williams, A. J., 896
Williams, M. R., 961
Williams, R. E., 1231
Williams, T., 570
Wilson, M. L., 1047
Wimberly, M. C., 669
Wong, J., 45
Woods, M. E., 411
Wright, S. A., 852
Wu, W.-J., 445

X

Xue, R.-D., 1226, 1247

Y

Yalwala, S., 1197
Yang, Y.-J., 405
Young, G., 701
Yowell, C., 485
Yukawa, M., 600, 904

Z

Zack, R. S., 382
Zambrano, M. L., 418
Zenner, L., 788
Zerba, E., 577
Zhao, L., 546
Zhioua, E., 518
Zhu, H., 468
Zollner, G. E., 1057
Zumaya-Estrada, F. A., 705

CUMULATIVE KEY WORD INDEX
Journal of Medical Entomology
Volume 48, 2011

A

abiotic limits,
  disease ecology, 20
  path analysis, 20
  spatial autocorrelation, 20
abundance,
  Anopheles freeborni, 513
  California, 513
  Culex tarsalis, 513
  dry ice-baited traps, 513
Acari, 140, 422
  bat ectoparasites, 140
  Enchistenes hartii, 140
  Eudusbabekia paralepidoseta n. sp., 140
  Lyme disease, 422
  Myobiidae, 140
  parasitism, 422
  pathogen transmission, 422
  zoonotic disease, 422
acaricide,
  Amblyomma americanum, 322
  Dermacentor variabilis, 322
  Ixodes scapularis, 322
  nootkatone, 322
  Rhipicephalus sanguineus, 322
  toxicity, 322
acetylcholinesterase,
  carboxylesterase, 694
  glycogen, 694
  life history trade-offs, 694
  lipids, 694
acquisition,
  Borrelia hermsii, 891
  Ornithodoros hermsi, 891
  relapsing fever spirochetes, 891
  transmission, 891
ACTELLIC 50 EC,
  Ahafo Ghana, 437
  indoor residual spraying, 437
  insecticide resistance, 437
  malaria control, 437
adult longevity,
  Aedes albopictus, 243
  Culex restuans, 243
  insecticide, 243
  temperature, 243
adult mosquito fitness,
  Aedes aegypti, 429
  Aedes albopictus, 429
  malathion, 429
  Sindbis virus, 429
Aedes,
  cold hardiness, 212
  Culicidae, 212
  nondiapausing egg, 212
  Stegomyia, 212
Aedes aegypti, 202, 334, 429, 533, 577, 644, 836, 846, 914, 941, 974, 999, 1095
  adult mosquito fitness, 429
  Aedes albopictus, 334, 429
  Artemia sp., 846
  attraction, 533
  bioacoustics, 941
  body size, 1095
  climate change, 974
  colony convergence, 533
  community participation, 577
  dengue, 334, 974, 999
  depletion, 202
  ethnobotany, 836
  fecundity, 202
  fumigant tablet, 577
  gene flow, 999
  immatures, 644
  insect repellent, 836
  Jatropha curcas, 836
  longevity, 202
  malathion, 429
  male mating history, 202
  mating, 941
  mechanistic model, 914
  microsatellites, 1095
  mosquitoes, 836
  México, 644
  N, 334
  N-diethyl-3-methylbenzamide, 334
  niche mapping, 914
  organophosphate resistance plant seed extracts, 846
  population structure, 999
  productive container types, 644
  Puerto Rico, 1095
  resource limitation, 974
  seasonality, 999
  selectivity, 846
  septic tanks, 1095
  Sindbis virus, 429
  temperature, 974
  Thailand, 334
  thermal responses, 914
  vector control, 39, 577
Aedes albopictus, 29, 243, 334, 429, 479, 526
  adult longevity, 243
  adult mosquito fitness, 429
  Aedes aegypti, 334, 429
  Aedes atropalpus, 479
  Aedes japonicus, 526
  antipredatory behavior, 526
  competition, 29, 479
  Culex pipiens, 29, 526
  Culex restuans, 243
  dengue, 334
  detritus, 29
  insecticide, 243
  malathion, 429, 479
  N, 334
  N-diethyl-3-methylbenzamide, 334
  pesticide, 479
  resource ratios, 29
  Sindbis virus, 429
  temperature, 243
  Thailand, 334
  Toxorhynchites rutilus, 526
Aedes atropalpus,
  Aedes albopictus, 479
  competition, 479
  malathion, 479
  pesticide, 479
Aedes crinifer,
  Culex dolosus s.l., 991
  Culex intrincatus, 991
  spatio-temporal distribution, 991
  wetland, 991
Aedes japonicus, 232, 526
  Aedes albopictus, 526
  Aedes triseriatus, 232
  antipredatory behavior, 526
  Culex pipiens, 526
  interspecific competition, 232
  invasion, 232
  longevity, 232
  Toxorhynchites rutilus, 526
Aedes polynesiensis,
  cytoplasmic incompatibility, 1008
  incompatible insect technique, 1008
  population replacement, 1008
  Wolbachia, 1008
Aedes taeniorhynchus,
  bloodmeal, 546
  development, 546
  mRNA expression, 546
  trypsin, 546
Aedes triseriatus,
  Aedes japonicus, 232
  interspecific competition, 232
  invasion, 232
  longevity, 232
Aedes vexans, 669, 1047
  Culex pipiens, 1047
  Culex restuans, 1047
  Culex tarsalis, 669
  land cover, 669
  sentinel pheasants, 1047
  weather, 669
  West Nile virus, 669, 1047
aerial trapping,
  dispersal, 508
  mating flights, 508

Solenopsis invicta, 508
Africa,
Calliphoridae, 738
identification, 738
larvae, 738
morphology, 738
age-class structure,
mark–recapture, 797
Periplaneta americana, 797
population ecology, 797
sewage system, 797
Agelaia,
Epiponini, 1069
forensic entomology, 1069
necrophagy, 1069
Polybia, 1069
agent-based model,
arbovirus, 1189
insecticide, 1189
mosquito, 1189
zoonosis, 1189
Ahafo Ghana,
ACTELLIC 50 EC, 437
indoor residual spraying, 437
insecticide resistance, 437
malaria control, 437
Allium sativum,
Lippia graveolens, 822
Rhipicephalus microplus, 822
Rosmarinus officinalis, 822
tick control, 822
Amasya,
CCHFV, 85
human, 85
ticks, 85
Turkey, 85
Amazonas,
distribution, 173
diversity, 173
forest fragments, 173
tropical rain forest, 173
Amblyomma,
Aponomma, 504
Indian rat snake, 504
spectacled cobra, 504
Amblyomma americanum, 322, 358, 708
acaricide, 322
carbon dioxide trap sampling, 708
Dermacentor variabilis, 322, 358
Ixodes scapularis, 322
mark–recapture, 708
nootkatone, 322
resistance, 358
Rhipicephalus sanguineus, 322
Rhipicephalus (*Boophilus*) *microplus*, 358
tick-borne disease, 708
toxicity, 322
Amblyomma dissimile,
Amblyomma latum, 94
Amblyomma rotundatum, 94
Geckobia hemidactyli, 94
Hirstiella stamii, 94
Amblyomma latum,
Amblyomma dissimile, 94
Amblyomma rotundatum, 94
Geckobia hemidactyli, 94
Hirstiella stamii, 94
Amblyomma rotundatum,
Amblyomma dissimile, 94
Amblyomma latum, 94
Geckobia hemidactyli, 94
Hirstiella stamii, 94
Amblyomma variegatum,
Caribbean, 485
Ehrlichia ruminantium, 485
heartwater, 485
West Indies, 485
amplification,
hydrology, 867
meteorology, 867
transmission, 867
West Nile virus, 867
An. annularis,
An. culicifacies, 561
DDT resistance, 561
glutathione S transferases (GSTs), 561
India, 561
An. culicifacies,
An. annularis, 561
DDT resistance, 561
glutathione S transferases (GSTs), 561
India, 561
Anacardium occidentale,
botanical insecticides, 291
glutathione S-transferase, 291
Lantana cramera, 291
lethal doses, 291
Anaplasma phagocytophilum,
Borrelia species, 101
fleas, 101
plague, 101
ticks, 101
animal export,
bluetongue viruses, 634
Culicoides, 634
epidemiology, 634
vector *Culicoides* spatial distribution, 634
Anopheles,
antibodies, 691
domestic animals, 691
saliva, 691
Senegal, 691
Anopheles arabiensis,
habitat conditioning, 296
interference, 296
mass rearing, 296
sterile insect technique, 296
Anopheles darlingi,
biting behavior, 1039
human odor, 1039
mosquito trapping, 1039
Suriname, 1039
Anopheles fluviatilis,
colonization, 395
malaria vector, 395
species T and U, 395
Anopheles freeborni,
abundance, 513
California, 513
Culex tarsalis, 513
dry ice-baited traps, 513
Anopheles gambiae,
Beauveria bassiana, 305
entomopathogenic fungi, 305
house screening, 305
vector control, 305
Anopheles plumbeus,
Culicidae, 924
habitat shift, 924
larval collection, 924
outbreaks, 924
anthropophily,
mosquito, 76
reproduction, 76
Wolbachia, 76
antibodies,
Anopheles, 691
domestic animals, 691
saliva, 691
Senegal, 691
antipredatory behavior,
Aedes albopictus, 526
Aedes japonicus, 526
Culex pipiens, 526
Toxorhynchites rutilus, 526
antiviral,
diverticula bacteria, 389
La Crosse virus, 389
midgut bacteria, 389
vector competence, 389
Aponomma,
Amblyomma, 504
Indian rat snake, 504
spectacled cobra, 504
aquatic insect community,
bioassay, 570
blackflies, 570
fish fry, 570
nontarget organisms, 570
Arbovirus, 453, 628, 1189, 1226
agent-based model, 1189
behavior, 1226
Culex bitaeniorhynchus, 1250
Culex tritaeniorhynchus, 1250
dipstick, 628
dissemination, 1226
insecticide, 1189
Korea, 1250
modeling, 453
mosquito, 1189
mosquito control, 453
mosquito-borne disease, 453
olfaction, 1226
rapid detection, 628
Ross River virus, 453
surveillance, 628
zoonosis, 1189
arbovirus vector,
ecology, 701
mosquito, 701
reservoir host, 701

West Nile virus, 701
aromatic amides,
insect repellent, 1160
toxicity, 1160
Artemia sp.,
Aedes aegypti, 846
organophosphate resistance plant seed extracts, 846
selectivity, 846
attraction, 518, 533
Aedes aegypti, 533
behavior, 518
colony convergence, 533
Phlebotomus papatasi, 518
repellence, 518
sex pheromone, 518
attractiveness,
kairomones, 39
Nyssomyia neivai, 39
sampling bias, 39
sand flies, 39
avian influenza virus,
house fly, 608
insect carrier, 608
Musca domestica, 608
transmission, 608
avian malaria,
bloodmeal, 600
mosquito, 600
polymerase chain reaction, 600
transmission cycle, 600
avian *Plasmodium*,
blood-source, 904
Japan, 904
mosquito, 904
subarctic zone, 904
azadirachtin,
bioinsecticide, 345
Brevibacillus laterosporus, 345
house fly, 345
pest management, 345

B

Bacillus sphaericus,
cost effectiveness, 813
Culex quinquefasciatus, 813
integrated vector control, 813
larvicide, 813
bacteria,
hobo spider, 382
methicillin-resistant *Staphylococcus aureus*, 382
spider bite, 382
Tegenaria agrestis, 382
Bartonella, 445, 1257
Ctenocephalides felis, 445
Dermacentor, 1257
Peru, 1257
Rhipicephalus sanguineus, 1257
Rickettsia felis, 445
Taiwan, 445
tick, 1257
bat ectoparasites,
Acari, 140
Enchistenes hartii, 140
Eudusbabekia paralepidoseta n. sp., 140
Myobiidae, 140
bat flies,
ectoparasites, 753
macronyssids, 753
southeastern Brazil, 753
spinturnicids, 753
Beauveria bassiana,
Anopheles gambiae, 305
entomopathogenic fungi, 305
house screening, 305
vector control, 305
bed bug, 937, 947, 1023
BestKeeper, 947
Cimex lectularius, 937
control, 1023
geNorm, 947
insecticides, 1023
mitochondrial DNA, 937
molecular diagnostics, 937
multiplex polymerase chain reaction, 937
NormFinder, 947
reference genes, 947
resistance, 1023
Thailand, 1023
behavior, 518, 1226
arbovirus, 1226
attraction, 518
dissemination, 1226
olfaction, 1226
Phlebotomus papatasi, 518
repellence, 518
sex pheromone, 518
BestKeeper,
bed bug, 947
geNorm, 947
NormFinder, 947
reference genes, 947
binary mixtures,
natural mosquito repellent, 61
vanillin, 61
Zanthoxylum armatum, 61
Zanthoxylum piperitum, 61
bioacoustics,
Aedes aegypti, 941
mating, 941
bioassay,
aquatic insect community, 570
blackflies, 570
fish fry, 570
nontarget organisms, 570
biodiversity,
conservation, 764
ecotourism, 764
leishmaniasis, 764
sand flies, 764
biogeography, 770, 806
cattle fever tick, 770
cytochrome oxidase II, 806
geographic database, 770
Georgia, 806
parapatric boundary, 770
Triatoma sanguisuga, 806
bioinsecticide,
azadirachtin, 345
Brevibacillus laterosporus, 345
house fly, 345
pest management, 345
biological control, 337, 788
D. gallinae, 788
diversity, 788
entomopathogenic fungi, 337
Hypocrea lixii, 337
Ixodes scapularis, 337
microbiota, 788
Penicillium soppii, 337
biological transmission,
mechanical transmission, 656
Pelecanus erythrorhynchos, 656
Stomoxys calcitrans, 656
West Nile virus, 656
birds,
Borrelia burgdorferi, 852
Ixodes pacificus, 852
lizards, 852
rodents, 852
biting activity,
climatic factors, 223
Culicidae, 223
hematophagous behavior, 223
biting behavior,
Anopheles darlingi, 1039
human odor, 1039
mosquito trapping, 1039
Suriname, 1039
blackflies,
aquatic insect community, 570
bioassay, 570
fish fry, 570
nontarget organisms, 570
blacklegged tick,
formulation, 1120
Ixodes scapularis, 1120
nootkatone, 1120
ticks, 1120
blanket dragging,
Ixodidae, 13
Spain, 13
ticks, 13
bloodmeal, 546, 600
Aedes taeniorhynchus, 546
avian malaria, 600
development, 546
mosquito, 600
mRNA expression, 546
polymerase chain reaction, 600
transmission cycle, 600
trypsin, 546
bloodmeal host,
interspecific variation, 860
intraspecific variation, 860
Ixodes scapularis, 860
molting success, 860
blood-source,
avian *Plasmodium*, 904
Japan, 904

mosquito, 904
subarctic zone, 904
blow flies,
entomotoxicology, 111
hormone, 111
postmortem interval, 111
bluetongue,
Butox 7.5 pour-on, 351
Culicoides, 351
deltamethrin, 351
vector control, 351
bluetongue viruses,
animal export, 634
Culicoides, 634
epidemiology, 634
vector *Culicoides* spatial distribution, 634
body size,
Aedes aegypti, 1095
microsatellites, 1095
Puerto Rico, 1095
septic tanks, 1095
Borrelia burgdorferi,
birds, 852
Ixodes pacificus, 852
lizards, 852
rodents, 852
Borrelia hermsii,
acquisition, 891
Ornithodoros hermsi, 891
relapsing fever spirochetes, 891
transmission, 891
Borrelia species,
Anaplasma phagocytophilum, 101
fleas, 101
plague, 101
ticks, 101
botanical acaricide,
cinnamaldehyde, 366
Dermatophagoides farinae, 366
Dermatophagoides pteronyssinus, 366
natural fumigant, 366
botanical insecticides,
Anacardium occidentale, 291
glutathione S-transferase, 291
Lantana cramera, 291
lethal doses, 291
bottle cap,
container mosquitoes, 712
containers, 712
evaporation, 712
evaporation rates, 712
Brevibacillus laterosporus,
azadirachtin, 345
bioinsecticide, 345
house fly, 345
pest management, 345
broilers,
Campylobacter jejuni, 1202
Musca domestica, 1202
retention time, 1202
temperature, 1202
Butox 7.5 pour-on,
bluetongue, 351
Culicoides, 351
deltamethrin, 351
vector control, 351

C

California, 513, 1136
abundance, 513
Anopheles freeborni, 513
Culex tarsalis, 513, 1136
Cx. quinquefasciatus, 1136
dry ice-baited traps, 513
mosquitoes, 1136
stormwater, 1136
Calliphoridae, 738, 1062
Africa, 738
ecological genetics, 1062
forensic entomology, 1062
identification, 738
larvae, 738
life history, 1062
Lucilia sericata, 1062
morphology, 738
Campylobacter jejuni,
broilers, 1202
Musca domestica, 1202
retention time, 1202
temperature, 1202
canonical discriminant analysis,
cytochrome c oxidase subunit I, 154
internal transcribed spacer 2, 154
Lutzomyia shannoni, 154
principal component analysis, 154
canyon fly,
diel activity, 188
Fannia conspicua, 188
host-seeking, 188
sugar feeding, 188
carbon dioxide trap sampling,
Amblyomma americanum, 708
mark–recapture, 708
tick-borne disease, 708
carboxylesterase,
acetylcholinesterase, 694
glycogen, 694
life history trade-offs, 694
lipids, 694
Caribbean,
Amblyomma variegatum, 485
Ehrlichia ruminantium, 485
heartwater, 485
West Indies, 485
carrion decomposition,
fly development, 1231
forensic entomology, 1231
postmortem interval, 1231
cattle,
cytochrome *b*, 53
horse, 53
PCR, 53
Stomoxys calcitrans, 53
cattle fever tick, 314, 770
biogeography, 770
control, 314
endectocide, 314
geographic database, 770
macrocyclic lactone, 314
moxidectin, 314
parapatric boundary, 770
CCHFV,
Amasya, 85
human, 85
ticks, 85
Turkey, 85
Chagas,
life-history traits, 775
population growth, 775
population parameters, 775
Triatominae, 775
Chagas disease, 929, 1091, 1167
deltamethrin, 929
horizontal transfer, 929
insecticide resistance, 1167
kissing bugs, 1091
pyrethroids, 1167
secondary exposure, 929
susceptibility variability, 1167
Triatoma infestans, 929, 1167
Triatoma sanguisuga, 1091
triatomines, 1091
Trypanosoma cruzi, 1091
checklist,
Culicidae, 717
illustrated larval key, 717
Saudi Arabia, 717
taxonomy, 717
Chrysomya rufifacies,
Cochliomyia macellaria, 118
larval length and weight, 118
Phormia regina, 118
preservation, 118
Cimex lectularius,
bed bug, 937
mitochondrial DNA, 937
molecular diagnostics, 937
multiplex polymerase chain reaction, 937
cinnamaldehyde,
botanical acaricide, 366
Dermatophagoides farinae, 366
Dermatophagoides pteronyssinus, 366
natural fumigant, 366
circadian activity patterns,
Culex erraticus, 167
mosquito, 167
questing females, 167
resting site, 167
climate, 468, 538
generalized linear model, 468
Iraq, 538
light trap, 538
mosquito abundance, 468
Phlebotomus, 538
precipitation, 468
sand fly, 538
temperature, 468

climate change,
Aedes aegypti, 974
dengue, 974
resource limitation, 974
temperature, 974
climatic factors,
biting activity, 223
Culicidae, 223
hematophagous behavior, 223
CO_2 generator system,
compressed CO_2, 1057
dry ice, 1057
Phlebotomus papatasi, 1057
surveillance, 1057
Cochliomyia hominivorax,
livestock pest, 280
mitochondrial DNA, 280
phylogeography, 280
target management units, 280
Cochliomyia macellaria,
Chrysomya rufifacies, 118
larval length and weight, 118
Phormia regina, 118
preservation, 118
cofeeding,
Ixodes ticks, 615
microclimate, 615
small mammals, 615
tick-borne encephalitis virus, 615
COI,
Culex, 272
phylogeny, 272
species complex, 272
taxonomy, 272
coinfections,
emerging pathogens, 651
Germany, 651
Ixodes, 651
tick-borne diseases, 651
cold hardiness,
Aedes, 212
Culicidae, 212
nondiapausing egg, 212
Stegomyia, 212
colonization, 395, 1236
Anopheles fluviatilis, 395
flies, 1236
malaria vector, 395
monkey carcass, 1236
oil palm plantation, 1236
species T and U, 395
wrapping, 1236
colony convergence,
Aedes aegypti, 533
attraction, 533
community participation,
Aedes aegypti, 577
fumigant tablet, 577
vector control, 577
competition, 29, 479, 554
Aedes albopictus, 29, 479
Aedes atropalpus, 479
Culex pipiens, 29
detritus, 29
development, 554
malathion, 479
mosquito larvae, 554
oviposition, 554
pesticide, 479
resource ratios, 29
zooplankton, 554
compressed CO_2,
CO_2 generator system, 1057
dry ice, 1057
Phlebotomus papatasi, 1057
surveillance, 1057
conservation,
biodiversity, 764
ecotourism, 764
leishmaniasis, 764
sand flies, 764
container mosquitoes,
bottle cap, 712
containers, 712
evaporation, 712
evaporation rates, 712
containers,
bottle cap, 712
container mosquitoes, 712
evaporation, 712
evaporation rates, 712
control, 314, 584, 1023
bed bug, 1023
cattle fever tick, 314
endectocide, 314
insecticide, 584
insecticides, 1023
Iraq, 584
macrocyclic lactone, 314
moxidectin, 314
resistance, 1023
sand fly, 584
Thailand, 1023
cost effectiveness,
Bacillus sphaericus, 813
Culex quinquefasciatus, 813
integrated vector control, 813
larvicide, 813
Ctenocephalides felis,
Bartonella, 445
Rickettsia felis, 445
Taiwan, 445
Culex,
COI, 272
phylogeny, 272
species complex, 272
taxonomy, 272
Culex bitaeniorhynchus,
Arbovirus, 1250
Culex tritaeniorhynchus, 1250
Korea, 1250
Culex dolosus s.l.,
Aedes crinifer, 991
Culex intrincatus, 991
spatio-temporal distribution, 991
wetland, 991
Culex erraticus,
circadian activity patterns, 167
mosquito, 167
questing females, 167
resting site, 167
Culex flavivirus,
Culex pipiens, 1031
flavivirus, 1031
tissue tropisms, 1031
transovarial transmission, 1031
Culex intrincatus,
Aedes crinifer, 991
Culex dolosus s.l., 991
spatio-temporal distribution, 991
wetland, 991
Culex pipiens, 29, 398, 526, 1031, 1047
Aedes albopictus, 29, 526
Aedes japonicus, 526
Aedes vexans, 1047
antipredatory behavior, 526
competition, 29
Culex flavivirus, 1031
Culex restuans, 1047
detritus, 29
flavivirus, 1031
mosquito feeding, 398
resource ratios, 29
sentinel pheasants, 1047
tissue tropisms, 1031
Toxorhynchites rutilus, 526
transovarial transmission, 1031
West Nile virus, 398, 1047
Culex quinquefasciatus, 813, 1136
Bacillus sphaericus, 813
California, 1136
cost effectiveness, 813
Culex tarsalis, 1136
integrated vector control, 813
larvicide, 813
mosquitoes, 1136
stormwater, 1136
Culex restuans, 243, 1047
adult longevity, 243
Aedes albopictus, 243
Aedes vexans, 1047
Culex pipiens, 1047
insecticide, 243
sentinel pheasants, 1047
temperature, 243
West Nile virus, 1047
Culex tarsalis, 513, 669, 1136
abundance, 513
Aedes vexans, 669
Anopheles freeborni, 513
California, 513, 1136
Cx. quinquefasciatus, 1136
dry ice-baited traps, 513
land cover, 669
mosquitoes, 1136
stormwater, 1136
weather, 669
West Nile virus, 669
Culex tritaeniorhynchus,
Arbovirus, 1250
Culex bitaeniorhynchus, 1250
Korea, 1250

Culex (*Melanoconion*),
internal transcribed spacer, 961
mosquito identification, 961
multiplex polymerase chain reaction, 961
Culicidae, 212, 223, 717, 924
Aedes, 212
Anopheles plumbeus, 924
biting activity, 223
checklist, 717
climatic factors, 223
cold hardiness, 212
habitat shift, 924
hematophagous behavior, 223
illustrated larval key, 717
larval collection, 924
nondiapausing egg, 212
outbreaks, 924
Saudi Arabia, 717
Stegomyia, 212
taxonomy, 717
Culicoides, 129, 351, 634
animal export, 634
bluetongue, 351
bluetongue viruses, 634
Butox 7.5 pour-on, 351
cytochrome oxidase subunit I gene, 129
deltamethrin, 351
epidemiology, 634
geometric morphometrics, 129
vector control, 351
vector *Culicoides* spatial distribution, 634
wing, 129
Culiseta,
EEEV, 196
fecundity, 196
Culiseta melanura,
Latin square, 909
resting shelters, 909
time, 909
cuticular hydrocarbons,
T. dimidiata, 262
taxonomy, 262
cytochemistry,
insect, 496
morphology, 496
reproductive tract, 496
vector, 496
cytochrome b, 53, 1016
cattle, 53
horse, 53
Leishmania infantum, 1016
Lutzomyia longipalpis, 1016
PCR, 53
population genetics, 1016
Stomoxys calcitrans, 53
visceral leishmaniasis, 1016
cytochrome c oxidase subunit I,
canonical discriminant analysis, 154
internal transcribed spacer 2, 154
Lutzomyia shannoni, 154
principal component analysis, 154
cytochrome oxidase II,
biogeography, 806
Georgia, 806
Triatoma sanguisuga, 806
cytochrome oxidase subunit I gene,
Culicoides, 129
geometric morphometrics, 129
wing, 129
cytoplasmic incompatibility,
Aedes polynesiensis, 1008
incompatible insect technique, 1008
population replacement, 1008
Wolbachia, 1008

D

D. gallinae,
biological control, 788
diversity, 788
microbiota, 788
Dama dama,
EPOD, 1
exotic pediculosis of deer, 1
hair loss, 1
Odocoileus hemionus, 1
Daphnia magna,
larvicidal activity, 405
mosquito, 405
Myrtaceae, 405
plant essential oils, 405
DDT resistance,
An. annularis, 561
An. culicifacies, 561
glutathione S transferases (GSTs), 561
India, 561
DEET,
eucalyptus oil, 1247
plant-based insect repellents, 1247
Psorophora columbiae, 1247
deltamethrin, 351, 929, 952
bluetongue, 351
Butox 7.5 pour-on, 351
Chagas disease, 929
Culicoides, 351
dinotefuran, 952
horizontal transfer, 929
piperonyl butoxide, 952
resistance management, 952
secondary exposure, 929
synergy, 952
Triatoma infestans, 929
vector control, 351
dengue, 334, 974, 999
Aedes aegypti, 334, 974, 999
Aedes albopictus, 334
climate change, 974
gene flow, 999
N, 334
N-diethyl-3-methylbenzamide, 334
population structure, 999
resource limitation, 974
seasonality, 999
temperature, 974
Thailand, 334
depletion,
Aedes aegypti, 202
fecundity, 202
longevity, 202
male mating history, 202
Deployed War Fighter Protection Program,
Duet, 1145
Fyfanon, 1145
Kenya, 1145
Marigat, 1145
phlebotomine sand fly, 1145
Dermacentor,
Bartonella, 1257
Peru, 1257
Rhipicephalus sanguineus, 1257
tick, 1257
Dermacentor variabilis, 322, 358, 884
acaricide, 322
Amblyomma americanum, 322, 358
Ixodes scapularis, 322
nootkatone, 322
resistance, 358
Rhipicephalus sanguineus, 322
Rhipicephalus (*Boophilus*) *microplus*, 358
tick-borne diseases, 884
toxicity, 322
tularemia, 884
vector competency, 884
vector efficiency, 884
Dermatobia hominis,
infestation, 680
larval implantation, 680
myiasis, 680
skin histopathology, 680
Dermatophagoides farinae,
botanical acaricide, 366
cinnamaldehyde, 366
Dermatophagoides pteronyssinus, 366
natural fumigant, 366
Dermatophagoides pteronyssinus,
botanical acaricide, 366
cinnamaldehyde, 366
Dermatophagoides farinae, 366
natural fumigant, 366
description,
Peru, 146
species group, 146
taxonomy, 146
Verrucarum, 146
detritus,
Aedes albopictus, 29
competition, 29
Culex pipiens, 29
resource ratios, 29
development, 546, 554
Aedes taeniorhynchus, 546
bloodmeal, 546

competition, 554
mosquito larvae, 554
mRNA expression, 546
oviposition, 554
trypsin, 546
zooplankton, 554
diel activity,
canyon fly, 188
Fannia conspicua, 188
host-seeking, 188
sugar feeding, 188
dinotefuran,
deltamethrin, 952
piperonyl butoxide, 952
resistance management, 952
synergy, 952
dipstick,
arbovirus, 628
rapid detection, 628
surveillance, 628
disease ecology,
abiotic limits, 20
path analysis, 20
spatial autocorrelation, 20
disease transmission,
host-feeding patterns, 956
invasive species, 956
metropolitan areas, 956
dispersal,
aerial trapping, 508
mating flights, 508
Solenopsis invicta, 508
dissemination,
arbovirus, 1226
behavior, 1226
olfaction, 1226
distribution,
Amazonas, 173
diversity, 173
forest fragments, 173
tropical rain forest, 173
diversity, 173, 788
Amazonas, 173
biological control, 788
D. gallinae, 788
distribution, 173
forest fragments, 173
microbiota, 788
tropical rain forest, 173
diverticula bacteria,
antiviral, 389
La Crosse virus, 389
midgut bacteria, 389
vector competence, 389
domestic animals,
Anopheles, 691
antibodies, 691
saliva, 691
Senegal, 691
dry ice,
CO_2 generator system, 1057
compressed CO_2, 1057
Phlebotomus papatasi, 1057
surveillance, 1057
dry ice-baited traps,
abundance, 513
Anopheles freeborni, 513
California, 513
Culex tarsalis, 513
Duet,
Deployed War Fighter Protection Program, 1145
Fyfanon, 1145
Kenya, 1145
Marigat, 1145
phlebotomine sand fly, 1145
Dumetella carolinensis,
eastern equine encephalitis virus, 896
overwintering, 896
recrudescence, 896
testosterone, 896

E

early-phase transmission,
plague, 411
temperature, 411
Xenopsylla cheopis, 411
Yersinia pestis, 411
eastern equine encephalitis,
mosquito, 967
overwintering, 967
winter emergence, 967
eastern equine encephalitis virus,
Dumetella carolinensis, 896
overwintering, 896
recrudescence, 896
testosterone, 896
ecological genetics,
Calliphoridae, 1062
forensic entomology, 1062
life history, 1062
Lucilia sericata, 1062
ecology,
arbovirus vector, 701
mosquito, 701
reservoir host, 701
West Nile virus, 701
ecotourism,
biodiversity, 764
conservation, 764
leishmaniasis, 764
sand flies, 764
ectoparasite, 251, 753
bat flies, 753
host-parasite interactions, 251
macronyssids, 753
microhabitat selection, 251
resource partitioning, 251
southeastern Brazil, 753
spinturnicids, 753
EEEV,
Culiseta, 196
fecundity, 196
Ehrlichia ruminantium,
Amblyomma variegatum, 485
Caribbean, 485
heartwater, 485
West Indies, 485
emerging pathogens, 441, 651
coinfections, 651
Germany, 441, 651
Ixodes, 441, 651
tick-borne diseases, 441, 651
en masse dispersal,
forensic entomology, 1112
larvae mass, 1112
Phormia regina, 1112
postmortem interval, 1112
Enchistenes hartii,
Acari, 140
bat ectoparasites, 140
Eudusbabekia paralepidoseta n. sp., 140
Myobiidae, 140
endectocide,
cattle fever tick, 314
control, 314
macrocyclic lactone, 314
moxidectin, 314
entomopathogenic fungi, 305, 337
Anopheles gambiae, 305
Beauveria bassiana, 305
biological control, 337
house screening, 305
Hypocrea lixii, 337
Ixodes scapularis, 337
Penicillium soppii, 337
vector control, 305
entomotoxicology,
blow flies, 111
hormone, 111
postmortem interval, 111
epidemiology,
animal export, 634
bluetongue viruses, 634
Culicoides, 634
vector *Culicoides* spatial distribution, 634
Epiponini,
Agelaia, 1069
forensic entomology, 1069
necrophagy, 1069
Polybia, 1069
EPOD,
Dama dama, 1
exotic pediculosis of deer, 1
hair loss, 1
Odocoileus hemionus, 1
Erophylla sezekorni bombifrons,
nymphal stages, 758
Periglischrus cubanus, 758
Puerto Rico, 758
Spinturnicidae, 758
ethnobotany,
Aedes aegypti, 836
insect repellent, 836
Jatropha curcas, 836
mosquitoes, 836
eucalyptus oil,
DEET, 1247
plant-based insect repellents, 1247
Psorophora columbiae, 1247

Eudusbabekia paralepidoseta n. sp.,
Acari, 140
bat ectoparasites, 140
Enchistenes hartii, 140
Myobiidae, 140
evaporation,
bottle cap, 712
container mosquitoes, 712
containers, 712
evaporation rates, 712
evaporation rates,
bottle cap, 712
container mosquitoes, 712
containers, 712
evaporation, 712
exotic pediculosis of deer,
Dama dama, 1
EPOD, 1
hair loss, 1
Odocoileus hemionus, 1
experimental hybrids,
Phyllosoma complex, 705
reproductive isolation, 705
triatomines, 705

F

Fannia conspicua,
canyon fly, 188
diel activity, 188
host-seeking, 188
sugar feeding, 188
fecundity, 196, 202, 985
Aedes aegypti, 202
Culiseta, 196
depletion, 202
EEEV, 196
gregarine, 985
infection dose, 985
longevity, 202
male mating history, 202
mortality, 985
sand fly, 985
fish fry,
aquatic insect community, 570
bioassay, 570
blackflies, 570
nontarget organisms, 570
flavivirus,
Culex flavivirus, 1031
Culex pipiens, 1031
tissue tropisms, 1031
transovarial transmission, 1031
fleas,
Anaplasma phagocytophilum, 101
Borrelia species, 101
plague, 101
ticks, 101
flies,
colonization, 1236
monkey carcass, 1236
oil palm plantation, 1236
wrapping, 1236
fly development,
carrion decomposition, 1231
forensic entomology, 1231
postmortem interval, 1231
forensic entomology, 1062, 1069, 1112, 1231
Agelaia, 1069
Calliphoridae, 1062
carrion decomposition, 1231
ecological genetics, 1062
en masse dispersal, 1112
Epiponini, 1069
fly development, 1231
larvae mass, 1112
life history, 1062
Lucilia sericata, 1062
necrophagy, 1069
Phormia regina, 1112
Polybia, 1069
postmortem interval, 1112, 1231
forest fragments,
Amazonas, 173
distribution, 173
diversity, 173
tropical rain forest, 173
formulation,
blacklegged tick, 1120
Ixodes scapularis, 1120
nootkatone, 1120
ticks, 1120
fumigant tablet,
Aedes aegypti, 577
community participation, 577
vector control, 577
Fyfanon,
Deployed War Fighter Protection Program, 1145
Duet, 1145
Kenya, 1145
Marigat, 1145
phlebotomine sand fly, 1145

G

Geckobia hemidactyli,
Amblyomma dissimile, 94
Amblyomma latum, 94
Amblyomma rotundatum, 94
Hirstiella stamii, 94
gene flow,
Aedes aegypti, 999
dengue, 999
population structure, 999
seasonality, 999
generalized linear model,
climate, 468
mosquito abundance, 468
precipitation, 468
temperature, 468
geNorm,
bed bug, 947
BestKeeper, 947
NormFinder, 947
reference genes, 947
genotyping,
Rhipicephalus ticks, 418
Rickettsia rickettsii, 418
geographic database,
biogeography, 770
cattle fever tick, 770
parapatric boundary, 770
geometric morphometrics,
Culicoides, 129
cytochrome oxidase subunit I gene, 129
wing, 129
Georgia,
biogeography, 806
cytochrome oxidase II, 806
Triatoma sanguisuga, 806
Germany, 441, 651
coinfections, 651
emerging pathogens, 441, 651
Ixodes, 441, 651
tick-borne diseases, 441, 651
glutathione S transferases (GSTs),
Anacardium occidentale, 291
An. annularis, 561
An. culicifacies, 561
botanical insecticides, 291
DDT resistance, 561
India, 561
Lantana cramera, 291
lethal doses, 291
glycogen,
acetylcholinesterase, 694
carboxylesterase, 694
life history trade-offs, 694
lipids, 694
gregarine,
fecundity, 985
infection dose, 985
mortality, 985
sand fly, 985
Gulf Coast ticks,
infection, 687
Rickettsia, 687
Rickettsia parkeri, 687
spotted fever group, 687

H

habitat conditioning,
Anopheles arabiensis, 296
interference, 296
mass rearing, 296
sterile insect technique, 296
habitat shift,
Anopheles plumbeus, 924
Culicidae, 924
larval collection, 924
outbreaks, 924
hair loss,
Dama dama, 1
EPOD, 1
exotic pediculosis of deer, 1
Odocoileus hemionus, 1
heartwater,
Amblyomma variegatum, 485
Caribbean, 485

Ehrlichia ruminantium, 485
West Indies, 485
heated air,
nonchemical treatment, 67
pediculicide, 67
Pediculus humanus capitis, 67
hematophagous behavior,
biting activity, 223
climatic factors, 223
Culicidae, 223
hemolymphagy,
paralyzing activity, 372
saliva, 372
Triatoma infestans, 372
triatomine, 372
Hirstiella stamii,
Amblyomma dissimile, 94
Amblyomma latum, 94
Amblyomma rotundatum, 94
Geckobia hemidactyli, 94
hobo spider,
bacteria, 382
methicillin-resistant *Staphylococcus aureus*, 382
spider bite, 382
Tegenaria agrestis, 382
hognose snake,
ocular myiasis, 934
reptile myiasis, 934
reptile parasite, 934
scuttle fly, 934
horizontal transfer,
Chagas disease, 929
deltamethrin, 929
secondary exposure, 929
Triatoma infestans, 929
hormone,
blow flies, 111
entomotoxicology, 111
postmortem interval, 111
horse,
cattle, 53
cytochrome *b*, 53
PCR, 53
Stomoxys calcitrans, 53
host aggregation,
mosquito-borne disease transmission, 1210
per-capita feeding rate, 1210
transmission dynamics, 1210
host-feeding pattern,
disease transmission, 956
invasive species, 956
metropolitan areas, 956
modeling, 1076
mosquitoes, 1076
vector-borne diseases, 1076
host-parasite interactions,
ectoparasite, 251
microhabitat selection, 251
resource partitioning, 251
host-seeking,
canyon fly, 188
diel activity, 188
Fannia conspicua, 188
sugar feeding, 188
house fly, 345, 608
avian influenza virus, 608
azadirachtin, 345
bioinsecticide, 345
Brevibacillus laterosporus, 345
insect carrier, 608
Musca domestica, 608
pest management, 345
transmission, 608
house fly salivary gland hypertrophy virus,
polymerase chain reaction, 1128
stable fly, 1128
house screening,
Anopheles gambiae, 305
Beauveria bassiana, 305
entomopathogenic fungi, 305
vector control, 305
human,
Amasya, 85
CCHFV, 85
ticks, 85
Turkey, 85
human head louse,
ivermectin formulation, 1174
Pediculus humanus capitis, 1174
posteclosion nymphicide, 1174
human odor,
Anopheles darlingi, 1039
biting behavior, 1039
mosquito trapping, 1039
Suriname, 1039
hydrology,
amplification, 867
meteorology, 867
transmission, 867
West Nile virus, 867
Hypocrea lixii,
biological control, 337
entomopathogenic fungi, 337
Ixodes scapularis, 337
Penicillium soppii, 337

I

identification,
Africa, 738
Calliphoridae, 738
larvae, 738
morphology, 738
illustrated larval key,
checklist, 717
Culicidae, 717
Saudi Arabia, 717
taxonomy, 717
immatures,
Aedes aegypti, 644
México, 644
productive container types, 644
incompatible insect technique,
Aedes polynesiensis, 1008
cytoplasmic incompatibility, 1008
population replacement, 1008
Wolbachia, 1008
India,
An. annularis, 561
An. culicifacies, 561
DDT resistance, 561
glutathione S transferases (GSTs), 561
Indian rat snake,
Amblyomma, 504
Aponomma, 504
spectacled cobra, 504
indoor residual spraying,
ACTELLIC 50 EC, 437
Ahafo Ghana, 437
insecticide resistance, 437
malaria control, 437
infection,
Gulf Coast ticks, 687
Rickettsia, 687
Rickettsia parkeri, 687
spotted fever group, 687
infection dose,
fecundity, 985
gregarine, 985
mortality, 985
sand fly, 985
infective dose,
porcine reproductive and respiratory syndrome, 876
stable fly, 876
virus transmission, 876
infestation,
Dermatobia hominis, 680
larval implantation, 680
myiasis, 680
skin histopathology, 680
insect,
cytochemistry, 496
morphology, 496
reproductive tract, 496
vector, 496
insect carrier,
avian influenza virus, 608
house fly, 608
Musca domestica, 608
transmission, 608
insect repellent, 836, 1160
Aedes aegypti, 836
aromatic amides, 1160
ethnobotany, 836
Jatropha curcas, 836
mosquitoes, 836
toxicity, 1160
insecticide, 243, 584, 1023, 1189
adult longevity, 243
Aedes albopictus, 243
agent-based model, 1189
arbovirus, 1189
bed bug, 1023
control, 584, 1023
Culex restuans, 243
Iraq, 584
mosquito, 1189
resistance, 1023

sand fly, 584
Thailand, 1023
temperature, 243
zoonosis, 1189
insecticide resistance, 437, 1167
ACTELLIC 50 EC, 437
Ahafo Ghana, 437
Chagas disease, 1167
indoor residual spraying, 437
malaria control, 437
pyrethroids, 1167
susceptibility variability, 1167
Triatoma infestans, 1167
insecticide susceptibility,
sylvatic populations, 828
Triatoma infestans, 828
integrated vector control,
Bacillus sphaericus, 813
cost effectiveness, 813
Culex quinquefasciatus, 813
larvicide, 813
interference,
Anopheles arabiensis, 296
habitat conditioning, 296
mass rearing, 296
sterile insect technique, 296
internal transcribed spacer,
Culex (*Melanoconion*), 961
mosquito identification, 961
multiplex polymerase chain reaction, 961
internal transcribed spacer 2,
canonical discriminant analysis, 154
cytochrome c oxidase subunit I, 154
Lutzomyia shannoni, 154
principal component analysis, 154
interspecific competition,
Aedes japonicus, 232
Aedes triseriatus, 232
invasion, 232
longevity, 232
interspecific variation,
bloodmeal host, 860
intraspecific variation, 860
Ixodes scapularis, 860
molting success, 860
intraspecific variation,
bloodmeal host, 860
interspecific variation, 860
Ixodes scapularis, 860
molting success, 860
invasion,
Aedes japonicus, 232
Aedes triseriatus, 232
interspecific competition, 232
longevity, 232
invasive species,
disease transmission, 956
host-feeding patterns, 956
metropolitan areas, 956
Iraq, 538, 584
climate, 538
control, 584
insecticide, 584
light trap, 538
Phlebotomus, 538
sand fly, 538, 584
ivermectin formulation,
human head louse, 1174
Pediculus humanus capitis, 1174
posteclosion nymphicide, 1174
Ixodes, 441, 651
coinfections, 651
emerging pathogens, 441, 651
Germany, 441, 651
tick-borne diseases, 441, 651
Ixodes pacificus,
birds, 852
Borrelia burgdorferi, 852
lizards, 852
rodents, 852
Ixodes scapularis, 322, 327, 337, 860, 1120
acaricide, 322
Amblyomma americanum, 322
biological control, 337
blacklegged tick, 1120
bloodmeal host, 860
Dermacentor variabilis, 322
entomopathogenic fungi, 337
formulation, 1120
Hypocrea lixii, 337
interspecific variation, 860
intraspecific variation, 860
molting success, 860
nootkatone, 322, 1120
Penicillium soppii, 337
permethrin, 327
Rhipicephalus sanguineus, 322
tick bite protection, 327
tick repellent clothing, 327
ticks, 1120
toxicity, 322
Ixodes ticks,
cofeeding, 615
microclimate, 615
small mammals, 615
tick-borne encephalitis virus, 615
Ixodidae,
blanket dragging, 13
Spain, 13
ticks, 13

J

Japan,
avian *Plasmodium*, 904
blood-source, 904
mosquito, 904
subarctic zone, 904
Jatropha curcas,
Aedes aegypti, 836
ethnobotany, 836
insect repellent, 836
mosquitoes, 836

K

kairomones,
attractiveness, 39
Nyssomyia neivai, 39
octenol, 39
sand flies, 39
kdr-like gene mutation,
Pediculus humanus capitis, 73
permethrin resistance, 73
Kenya, 1145, 1197
Deployed War Fighter Protection Program, 1145
Duet, 1145
Fyfanon, 1145
Marigat, 1145
phlebotomine sand fly, 1145
transmission, 1197
vector competence, 1197
kissing bugs,
Chagas disease, 1091
Triatoma sanguisuga, 1091
triatomines, 1091
Trypanosoma cruzi, 1091
Korea,
Arbovirus, 1250
Culex bitaeniorhynchus, 1250
Culex tritaeniorhynchus, 1250

L

La Crosse virus,
antiviral, 389
diverticula bacteria, 389
midgut bacteria, 389
vector competence, 389
land cover,
Aedes vexans, 669
Culex tarsalis, 669
weather, 669
West Nile virus, 669
Lantana cramera,
Anacardium occidentale, 291
botanical insecticides, 291
glutathione S-transferase, 291
lethal doses, 291
larvae,
Africa, 738
Calliphoridae, 738
identification, 738
morphology, 738
larvae mass,
en masse dispersal, 1112
forensic entomology, 1112
Phormia regina, 1112
postmortem interval, 1112
larval collection,
Anopheles plumbeus, 924
Culicidae, 924
habitat shift, 924
outbreaks, 924
larval implantation,
Dermatobia hominis, 680
infestation, 680
myiasis, 680
skin histopathology, 680

larval length and weight,
Chrysomya rufifacies, 118
Cochliomyia macellaria, 118
Phormia regina, 118
preservation, 118
larvicidal activity,
Daphnia magna, 405
mosquito, 405
Myrtaceae, 405
plant essential oils, 405
larvicide,
Bacillus sphaericus, 813
cost effectiveness, 813
Culex quinquefasciatus, 813
integrated vector control, 813
Latin square,
Culiseta melanura, 909
resting shelters, 909
time, 909
Leishmania infantum,
cytochrome b, 1016
Lutzomyia longipalpis, 1016
population genetics, 1016
visceral leishmaniasis, 1016
leishmaniasis, 476, 764, 1103
biodiversity, 764
conservation, 764
ecotourism, 764
Lutzomyia shannoni, 476
Lutzomyia vexator, 476
Lutzomyia, 1103
Phlebotominae, 1103
phlebotomine, 476
public health, 1103
sand flies, 764
sand fly, 476
VSV, 1103
lethal doses,
Anacardium occidentale, 291
botanical insecticides, 291
glutathione S-transferase, 291
Lantana camera, 291
life history,
Calliphoridae, 1062
ecological genetics, 1062
forensic entomology, 1062
Lucilia sericata, 1062
life history trade-offs,
acetylcholinesterase, 694
carboxylesterase, 694
glycogen, 694
lipids, 694
life-history traits,
Chagas, 775
population growth, 775
population parameters, 775
Triatominae, 775
light trap,
climate, 538
Iraq, 538
Phlebotomus, 538
sand fly, 538
lipids,
acetylcholinesterase, 694
carboxylesterase, 694
glycogen, 694
life history trade-offs, 694
Lippia graveolens,
Allium sativum, 822
Rhipicephalus microplus, 822
Rosmarinus officinalis, 822
tick control, 822
livestock pest,
Cochliomyia hominivorax, 280
mitochondrial DNA, 280
phylogeography, 280
target management units, 280
lizards,
birds, 852
Borrelia burgdorferi, 852
Ixodes pacificus, 852
rodents, 852
lone star ticks,
Rickettsia rickettsii, 461
Rocky Mountain spotted fever, 461
vectorial capacity, 461
longevity, 202, 232
Aedes aegypti, 202
Aedes japonicus, 232
Aedes triseriatus, 232
depletion, 202
fecundity, 202
interspecific competition, 232
invasion, 232
male mating history, 202
Lucilia sericata,
Calliphoridae, 1062
ecological genetics, 1062
forensic entomology, 1062
life history, 1062
Lutzomyia, 489, 1103
leishmaniasis, 1103
pheromone gland development, 489
pheromone production, 489
Phlebotominae, 1103
public health, 1103
sand flies, 489
ultrastructure, 489
VSV, 1103
Lutzomyia longipalpis,
cytochrome b, 1016
Leishmania infantum, 1016
population genetics, 1016
visceral leishmaniasis, 1016
Lutzomyia shannoni, 154, 476
canonical discriminant analysis, 154
cytochrome c oxidase subunit I, 154
internal transcribed spacer 2, 154
leishmaniasis, 476
Lutzomyia vexator, 476
phlebotomine, 476
principal component analysis, 154
sand fly, 476
Lutzomyia vexator,
leishmaniasis, 476
Lutzomyia shannoni, 476
phlebotomine, 476
sand fly, 476
Lyme disease,
Acari, 422
parasitism, 422
pathogen transmission, 422
zoonotic disease, 422

M

macrocyclic lactone,
cattle fever tick, 314
control, 314
endectocide, 314
moxidectin, 314
macronyssids,
bat flies, 753
ectoparasites, 753
southeastern Brazil, 753
spinturnicids, 753
malaria control,
ACTELLIC 50 EC, 437
Ahafo Ghana, 437
indoor residual spraying, 437
insecticide resistance, 437
malaria vector,
Anopheles fluviatilis, 395
colonization, 395
species T and U, 395
malathion, 429, 479
adult mosquito fitness, 429
Aedes aegypti, 429
Aedes albopictus, 429, 479
Aedes atropalpus, 479
competition, 479
pesticide, 479
Sindbis virus, 429
male mating history,
Aedes aegypti, 202
depletion, 202
fecundity, 202
longevity, 202
Marigat,
Deployed War Fighter Protection Program, 1145
Duet, 1145
Fyfanon, 1145
Kenya, 1145
phlebotomine sand fly, 1145
mark–recapture, 708, 797
age-class structure, 797
Amblyomma americanum, 708
carbon dioxide trap sampling, 708
Periplaneta americana, 797
population ecology, 797
sewage system, 797
tick-borne disease, 708
mass rearing,
Anopheles arabiensis, 296
habitat conditioning, 296
interference, 296
sterile insect technique, 296
mating,
Aedes aegypti, 941
bioacoustics, 941

mating flights,
aerial trapping, 508
dispersal, 508
Solenopsis invicta, 508
mechanical transmission,
biological transmission, 656
Pelecanus erythrorhynchos, 656
Stomoxys calcitrans, 656
West Nile virus, 656
mechanistic model,
Aedes aegypti, 914
niche mapping, 914
thermal responses, 914
meteorology,
amplification, 867
hydrology, 867
transmission, 867
West Nile virus, 867
methicillin-resistant *Staphylococcus aureus*,
bacteria, 382
hobo spider, 382
spider bite, 382
Tegenaria agrestis, 382
metropolitan areas,
disease transmission, 956
host-feeding patterns, 956
invasive species, 956
microbiota,
biological control, 788
D. gallinae, 788
diversity, 788
microclimate,
cofeeding, 615
Ixodes ticks, 615
small mammals, 615
tick-borne encephalitis virus, 615
microhabitat selection,
ectoparasite, 251
host-parasite interactions, 251
resource partitioning, 251
microsatellites,
Aedes aegypti, 1095
body size, 1095
Puerto Rico, 1095
septic tanks, 1095
midgut bacteria,
antiviral, 389
diverticula bacteria, 389
La Crosse virus, 389
vector competence, 389
mitochondrial DNA, 280, 937
bed bug, 937
Cimex lectularius, 937
Cochliomyia hominivorax, 280
livestock pest, 280
molecular diagnostics, 937
multiplex polymerase chain reaction, 937
phylogeography, 280
target management units, 280
modeling, 453, 1076
arbovirus, 453
host-feeding pattern, 1076
mosquito control, 453
mosquito-borne disease, 453
mosquitoes, 1076
Ross River virus, 453
vector-borne diseases, 1076
molecular diagnostics,
bed bug, 937
Cimex lectularius, 937
mitochondrial DNA, 937
multiplex polymerase chain reaction, 937
molting success,
bloodmeal host, 860
interspecific variation, 860
intraspecific variation, 860
Ixodes scapularis, 860
monkey carcass,
colonization, 1236
flies, 1236
oil palm plantation, 1236
wrapping, 1236
morphology, 496, 738
Africa, 738
Calliphoridae, 738
cytochemistry, 496
identification, 738
insect, 496
larvae, 738
reproductive tract, 496
vector, 496
mortality,
fecundity, 985
gregarine, 985
infection dose, 985
sand fly, 985
mosquito, 76, 167, 405, 600, 701, 836, 904, 967, 1076, 1136, 1189
Aedes aegypti, 836
agent-based model, 1189
anthropophily, 76
arbovirus, 1189
arbovirus vector, 701
avian malaria, 600
avian *Plasmodium*, 904
blood-source, 904
bloodmeal, 600
California, 1136
circadian activity patterns, 167
Culex erraticus, 167
Culex tarsalis, 1136
Cx. quinquefasciatus, 1136
Daphnia magna, 405
eastern equine encephalitis, 967
ecology, 701
ethnobotany, 836
host-feeding pattern, 1076
insecticide, 1189
insect repellent, 836
Japan, 904
Jatropha curcas, 836
larvicidal activity, 405
modeling, 1076
Myrtaceae, 405
overwintering, 967
plant essential oils, 405
polymerase chain reaction, 600
questing females, 167
reproduction, 76
reservoir host, 701
resting site, 167
stormwater, 1136
subarctic zone, 904
transmission cycle, 600
vector-borne diseases, 1076
West Nile virus, 701
winter emergence, 967
Wolbachia, 76
zoonosis, 1189
mosquito abundance,
climate, 468
generalized linear model, 468
precipitation, 468
temperature, 468
mosquito control,
arbovirus, 453
modeling, 453
mosquito-borne disease, 453
Ross River virus, 453
mosquito feeding,
Culex pipiens, 398
West Nile virus, 398
mosquito identification,
Culex (*Melanoconion*), 961
internal transcribed spacer, 961
multiplex polymerase chain reaction, 961
mosquito larvae,
competition, 554
development, 554
oviposition, 554
zooplankton, 554
mosquito trapping,
Anopheles darlingi, 1039
biting behavior, 1039
human odor, 1039
Suriname, 1039
mosquito-borne disease,
arbovirus, 453
modeling, 453
mosquito control, 453
Ross River virus, 453
mosquito-borne disease transmission,
host aggregation, 1210
per-capita feeding rate, 1210
transmission dynamics, 1210
moxidectin,
cattle fever tick, 314
control, 314
endectocide, 314
macrocyclic lactone, 314
mRNA expression,
Aedes taeniorhynchus, 546
bloodmeal, 546
development, 546
trypsin, 546

multiplex polymerase chain reaction, 937, 961
bed bug, 937
Cimex lectularius, 937
Culex (*Melanoconion*), 961
internal transcribed spacer, 961
mitochondrial DNA, 937
molecular diagnostics, 937
mosquito identification, 961
Musca domestica, 608, 1202
avian influenza virus, 608
broilers, 1202
Campylobacter jejuni, 1202
house fly, 608
insect carrier, 608
retention time, 1202
temperature, 1202
transmission, 608
myiasis,
Dermatobia hominis, 680
infestation, 680
larval implantation, 680
skin histopathology, 680
Myobiidae,
Acari, 140
bat ectoparasites, 140
Enchistenes hartii, 140
Eudusbabekia paralepidoseta n. sp., 140
Myrtaceae,
Daphnia magna, 405
larvicidal activity, 405
mosquito, 405
plant essential oils, 405
México
Aedes aegypti, 644
immatures, 644
productive container types, 644

N

N,
Aedes aegypti, 334
Aedes albopictus, 334
dengue, 334
N-diethyl-3-methylbenzamide, 334
Thailand, 334
N-diethyl-3-methylbenzamide,
Aedes aegypti, 334
Aedes albopictus, 334
dengue, 334
N, 334
Thailand, 334
natural fumigant,
botanical acaricide, 366
cinnamaldehyde, 366
Dermatophagoides farinae, 366
Dermatophagoides pteronyssinus, 366
natural mosquito repellent,
binary mixtures, 61
vanillin, 61
Zanthoxylum armatum, 61
Zanthoxylum piperitum, 61
necrophagy,
Agelaia, 1069
Epiponini, 1069
forensic entomology, 1069
Polybia, 1069
niche mapping,
Aedes aegypti, 914
mechanistic model, 914
thermal responses, 914
nonchemical treatment,
heated air, 67
pediculicide, 67
Pediculus humanus capitis, 67
nondiapausing egg,
Aedes, 212
cold hardiness, 212
Culicidae, 212
Stegomyia, 212
nontarget organisms,
aquatic insect community, 570
bioassay, 570
blackflies, 570
fish fry, 570
nootkatone, 322, 1120
acaricide, 322
Amblyomma americanum, 322
blacklegged tick, 1120
Dermacentor variabilis, 322
formulation, 1120
Ixodes scapularis, 322, 1120
Rhipicephalus sanguineus, 322
ticks, 1120
toxicity, 322
NormFinder,
bed bug, 947
BestKeeper, 947
geNorm, 947
reference genes, 947
nymphal stages,
Erophylla sezekorni bombifrons, 758
Periglischrus cubanus, 758
Puerto Rico, 758
Spinturnicidae, 758
Nyssomyia neivai,
attractiveness, 39
kairomones, 39
octenol, 39
sand flies, 39

O

octenol,
attractiveness, 39
kairomones, 39
Nyssomyia neivai, 39
sand flies, 39
ocular myiasis,
hognose snake, 934
reptile myiasis, 934
reptile parasite, 934
scuttle fly, 934
Odocoileus hemionus,
Dama dama, 1
EPOD, 1
exotic pediculosis of deer, 1
hair loss, 1
oil palm plantation,
colonization, 1236
flies, 1236
monkey carcass, 1236
wrapping, 1236
olfaction,
arbovirus, 1226
behavior, 1226
dissemination, 1226
organophosphate resistance plant seed extracts,
Aedes aegypti, 846
Artemia sp., 846
selectivity, 846
Ornithodoros hermsi,
acquisition, 891
Borrelia hermsii, 891
relapsing fever spirochetes, 891
transmission, 891
outbreaks,
Anopheles plumbeus, 924
Culicidae, 924
habitat shift, 924
larval collection, 924
overwintering, 896, 967
Dumetella carolinensis, 896
eastern equine encephalitis, 967
eastern equine encephalitis virus, 896
mosquito, 967
recrudescence, 896
testosterone, 896
winter emergence, 967
oviposition, 554
competition, 554
development, 554
mosquito larvae, 554
zooplankton, 554
ovitrap monitoring,
premises maintenance index, 1214
premises shading index, 1214
Stegomyia indices, 1214
surveillance, 1214

P

paralyzing activity,
hemolymphagy, 372
saliva, 372
Triatoma infestans, 372
triatomine, 372
parapatric boundary,
biogeography, 770
cattle fever tick, 770
geographic database, 770
parasite virulence,
Plasmodium, 1183
sand flies, 1183
parasitism,
Acari, 422
Lyme disease, 422
pathogen transmission, 422
zoonotic disease, 422

path analysis,
abiotic limits, 20
disease ecology, 20
spatial autocorrelation, 20
pathogen transmission,
Acari, 422
Lyme disease, 422
parasitism, 422
zoonotic disease, 422
PCR,
cattle, 53
cytochrome *b*, 53
horse, 53
Stomoxys calcitrans, 53
pediculicide,
heated air, 67
nonchemical treatment, 67
Pediculus humanus capitis, 67
Pediculus humanus capitis, 67, 73, 1174
heated air, 67
human head louse, 1174
ivermectin formulation, 1174
kdr-like gene mutation, 73
nonchemical treatment, 67
pediculicide, 67
permethrin resistance, 73
posteclosion nymphicide, 1174
Pelecanus erythrorhynchos,
biological transmission, 656
mechanical transmission, 656
Stomoxys calcitrans, 656
West Nile virus, 656
Penicillium soppii,
biological control, 337
entomopathogenic fungi, 337
Hypocrea lixii, 337
Ixodes scapularis, 337
per-capita feeding rate,
host aggregation, 1210
mosquito-borne disease transmission, 1210
transmission dynamics, 1210
Periglischrus cubanus,
Erophylla sezekorni bombifrons, 758
nymphal stages, 758
Puerto Rico, 758
Spinturnicidae, 758
Periplaneta americana,
age-class structure, 797
mark–recapture, 797
population ecology, 797
sewage system, 797
permethrin,
Ixodes scapularis, 327
tick bite protection, 327
tick repellent clothing, 327
permethrin resistance,
kdr-like gene mutation, 73
Pediculus humanus capitis, 73
Peru, 146, 1257
Bartonella, 1257
Dermacentor, 1257
description, 146
Rhipicephalus sanguineus, 1257
species group, 146
taxonomy, 146
tick, 1257
Verrucarum, 146
pest management,
azadirachtin, 345
bioinsecticide, 345
Brevibacillus laterosporus, 345
house fly, 345
pesticide,
Aedes albopictus, 479
Aedes atropalpus, 479
competition, 479
malathion, 479
pheromone gland development,
Lutzomyia, 489
pheromone production, 489
sand flies, 489
ultrastructure, 489
pheromone production,
Lutzomyia, 489
pheromone gland development, 489
sand flies, 489
ultrastructure, 489
Phlebotominae,
leishmaniasis, 1103
Lutzomyia, 1103
public health, 1103
VSV, 1103
phlebotomine,
leishmaniasis, 476
Lutzomyia shannoni, 476
Lutzomyia vexator, 476
sand fly, 476
phlebotomine sand fly,
Deployed War Fighter Protection Program, 1145
Duet, 1145
Fyfanon, 1145
Kenya, 1145
Marigat, 1145
Phlebotomus,
climate, 538
Iraq, 538
light trap, 538
sand fly, 538
Phlebotomus papatasi, 518, 1057
attraction, 518
behavior, 518
CO_2 generator system, 1057
compressed CO_2, 1057
dry ice, 1057
repellence, 518
sex pheromone, 518
surveillance, 1057
Phormia regina, 118, 1112
Chrysomya rufifacies, 118
Cochliomyia macellaria, 118
en masse dispersal, 1112
forensic entomology, 1112
larvae mass, 1112
larval length and weight, 118
postmortem interval, 1112
preservation, 118
Phyllosoma complex,
experimental hybrids, 705
reproductive isolation, 705
triatomines, 705
phylogeny,
COI, 272
Culex, 272
species complex, 272
taxonomy, 272
phylogeography,
Cochliomyia hominivorax, 280
livestock pest, 280
mitochondrial DNA, 280
target management units, 280
piperonyl butoxide,
deltamethrin, 952
dinotefuran, 952
resistance management, 952
synergy, 952
plague, 101, 411
Anaplasma phagocytophilum, 101
Borrelia species, 101
early-phase transmission, 411
fleas, 101
temperature, 411
ticks, 101
Xenopsylla cheopis, 411
Yersinia pestis, 411
plant essential oils,
Daphnia magna, 405
larvicidal activity, 405
mosquito, 405
Myrtaceae, 405
plant-based insect repellents,
DEET, 1247
eucalyptus oil, 1247
Psorophora columbiae, 1247
Plasmodium,
parasite virulence, 1183
sand flies, 1183
Polybia,
Agelaia, 1069
Epiponini, 1069
forensic entomology, 1069
necrophagy, 1069
polymerase chain reaction, 600, 1128
avian malaria, 600
bloodmeal, 600
house fly salivary gland hypertrophy virus, 1128
mosquito, 600
stable fly, 1128
transmission cycle, 600
population ecology,
age-class structure, 797
mark–recapture, 797
Periplaneta americana, 797
sewage system, 797
population genetics,
cytochrome b, 1016
Leishmania infantum, 1016
Lutzomyia longipalpis, 1016
visceral leishmaniasis, 1016

population growth,
Chagas, 775
life-history traits, 775
population parameters, 775
Triatominae, 775
population parameters,
Chagas, 775
life-history traits, 775
population growth, 775
Triatominae, 775
population replacement,
Aedes polynesiensis, 1008
cytoplasmic incompatibility, 1008
incompatible insect technique, 1008
Wolbachia, 1008
population structure,
Aedes aegypti, 999
dengue, 999
gene flow, 999
seasonality, 999
porcine reproductive and respiratory syndrome,
infective dose, 876
stable fly, 876
virus transmission, 876
posteclosion nymphicide,
human head louse, 1174
ivermectin formulation, 1174
Pediculus humanus capitis, 1174
postmortem interval, 111, 1112, 1231
blow flies, 111
carrion decomposition, 1231
en masse dispersal, 1112
entomotoxicology, 111
fly development, 1231
forensic entomology, 1112, 1231
hormone, 111
larvae mass, 1112
Phormia regina, 1112
precipitation,
climate, 468
generalized linear model, 468
mosquito abundance, 468
temperature, 468
premises maintenance index,
ovitrap monitoring, 1214
premises shading index, 1214
Stegomyia indices, 1214
surveillance, 1214
premises shading index,
ovitrap monitoring, 1214
premises maintenance index, 1214
Stegomyia indices, 1214
surveillance, 1214
preservation,
Chrysomya rufifacies, 118
Cochliomyia macellaria, 118
larval length and weight, 118
Phormia regina, 118
principal component analysis,
canonical discriminant analysis, 154
cytochrome c oxidase subunit I, 154
internal transcribed spacer 2, 154
Lutzomyia shannoni, 154
productive container types,
Aedes aegypti, 644
immatures, 644
México, 644
Psorophora columbiae,
DEET, 1247
eucalyptus oil, 1247
plant-based insect repellents, 1247
public health,
leishmaniasis, 1103
Lutzomyia, 1103
Phlebotominae, 1103
VSV, 1103
Puerto Rico, 758, 1095
Aedes aegypti, 1095
body size, 1095
Erophylla sezekorni bombifrons, 758
microsatellites, 1095
nymphal stages, 758
Periglischrus cubanus, 758
septic tanks, 1095
Spinturnicidae, 758
pyrethroids,
Chagas disease, 1167
insecticide resistance, 1167
susceptibility variability, 1167
Triatoma infestans, 1167

Q

questing females,
circadian activity patterns, 167
Culex erraticus, 167
mosquito, 167
resting site, 167

R

rapid detection,
arbovirus, 628
dipstick, 628
surveillance, 628
recrudescence,
Dumetella carolinensis, 896
eastern equine encephalitis virus, 896
overwintering, 896
testosterone, 896
reference genes,
bed bug, 947
BestKeeper, 947
geNorm, 947
NormFinder, 947
relapsing fever spirochetes,
acquisition, 891
Borrelia hermsii, 891
Ornithodoros hermsi, 891
transmission, 891
repellence,
attraction, 518
behavior, 518
Phlebotomus papatasi, 518
sex pheromone, 518
reproduction,
anthropophily, 76
mosquito, 76
Wolbachia, 76
reproductive isolation,
experimental hybrids, 705
Phyllosoma complex, 705
triatomines, 705
reproductive tract,
cytochemistry, 496
insect, 496
morphology, 496
vector, 496
reptile myiasis,
hognose snake, 934
ocular myiasis, 934
reptile parasite, 934
scuttle fly, 934
reptile parasite,
hognose snake, 934
ocular myiasis, 934
reptile myiasis, 934
scuttle fly, 934
reservoir host,
arbovirus vector, 701
ecology, 701
mosquito, 701
West Nile virus, 701
resistance, 358, 1023
Amblyomma americanum, 358
bed bug, 1023
control, 1023
Dermacentor variabilis, 358
insecticides, 1023
Rhipicephalus (*Boophilus*) *microplus*, 358
Thailand, 1023
resistance management,
deltamethrin, 952
dinotefuran, 952
piperonyl butoxide, 952
synergy, 952
resource limitation,
Aedes aegypti, 974
climate change, 974
dengue, 974
temperature, 974
resource partitioning,
ectoparasite, 251
host-parasite interactions, 251
microhabitat selection, 251
resource ratios,
Aedes albopictus, 29
competition, 29
Culex pipiens, 29
detritus, 29
resting shelters,
Culiseta melanura, 909
Latin square, 909
time, 909

resting site,
circadian activity patterns, 167
Culex erraticus, 167
mosquito, 167
questing females, 167
retention time,
broilers, 1202
Campylobacter jejuni, 1202
Musca domestica, 1202
temperature, 1202
Rhipicephalus microplus,
Allium sativum, 822
Lippia graveolens, 822
Rosmarinus officinalis, 822
tick control, 822
Rhipicephalus sanguineus, 322, 1257
acaricide, 322
Amblyomma americanum, 322
Bartonella, 1257
Dermacentor variabilis, 322
Dermacentor, 1257
Ixodes scapularis, 322
nootkatone, 322
Peru, 1257
tick, 1257
toxicity, 322
Rhipicephalus (*Boophilus*) *microplus*,
Amblyomma americanum, 358
Dermacentor variabilis, 358
resistance, 358
Rhipicephalus (*Boophilus*) *microplus*, 358
Rhipicephalus ticks,
genotyping, 418
Rickettsia rickettsii, 418
Rickettsia,
Gulf Coast ticks, 687
infection, 687
Rickettsia parkeri, 687
spotted fever group, 687
Rickettsia felis,
Bartonella, 445
Ctenocephalides felis, 445
Taiwan, 445
Rickettsia parkeri,
Gulf Coast ticks, 687
infection, 687
Rickettsia, 687
spotted fever group, 687
Rickettsia rickettsii, 418, 461
genotyping, 418
lone star ticks, 461
Rhipicephalus ticks, 418
Rocky Mountain spotted fever, 461
vectorial capacity, 461
Rocky Mountain spotted fever,
lone star ticks, 461
Rickettsia rickettsii, 461
vectorial capacity, 461
rodents,
birds, 852
Borrelia burgdorferi, 852
Ixodes pacificus, 852
lizards, 852
Rosmarinus officinalis,
Allium sativum, 822
Lippia graveolens, 822
Rhipicephalus microplus, 822
tick control, 822
Ross River virus,
arbovirus, 453
modeling, 453
mosquito control, 453
mosquito-borne disease, 453

S

saliva, 372, 691
Anopheles, 691
antibodies, 691
domestic animals, 691
hemolymphagy, 372
paralyzing activity, 372
Senegal, 691
Triatoma infestans, 372
triatomine, 372
sand fly, 39, 476, 489, 538, 584, 764, 985, 1183
attractiveness, 39
biodiversity, 764
conservation, 764
climate, 538
control, 584
ecotourism, 764
fecundity, 985
gregarine, 985
infection dose, 985
insecticide, 584
Iraq, 538, 584
kairomones, 39
leishmaniasis, 476, 764
light trap, 538
Lutzomyia, 489
Lutzomyia shannoni, 476
Lutzomyia vexator, 476
mortality, 985
Nyssomyia neivai, 39
octenol, 39
parasite virulence, 1183
pheromone gland development, 489
pheromone production, 489
phlebotomine, 476
Phlebotomus, 538
Plasmodium, 1183
sampling bias, 39
ultrastructure, 489
Saudi Arabia,
checklist, 717
Culicidae, 717
illustrated larval key, 717
taxonomy, 717
scuttle fly,
hognose snake, 934
ocular myiasis, 934
reptile myiasis, 934
reptile parasite, 934
seasonality,
Aedes aegypti, 999
dengue, 999
gene flow, 999
population structure, 999
secondary exposure,
Chagas disease, 929
deltamethrin, 929
horizontal transfer, 929
Triatoma infestans, 929
selectivity,
Aedes aegypti, 846
Artemia sp., 846
organophosphate resistance plant seed extracts, 846
Senegal,
Anopheles, 691
antibodies, 691
domestic animals, 691
saliva, 691
sentinel pheasants,
Aedes vexans, 1047
Culex pipiens, 1047
Culex restuans, 1047
West Nile virus, 1047
septic tanks,
Aedes aegypti, 1095
body size, 1095
microsatellites, 1095
Puerto Rico, 1095
sewage system,
age-class structure, 797
mark–recapture, 797
Periplaneta americana, 797
population ecology, 797
sex pheromone,
attraction, 518
behavior, 518
Phlebotomus papatasi, 518
repellence, 518
Sindbis virus,
adult mosquito fitness, 429
Aedes aegypti, 429
Aedes albopictus, 429
malathion, 429
skin histopathology,
Dermatobia hominis, 680
infestation, 680
larval implantation, 680
myiasis, 680
small mammals,
cofeeding, 615
Ixodes ticks, 615
microclimate, 615
tick-borne encephalitis virus, 615
Solenopsis invicta,
aerial trapping, 508
dispersal, 508
mating flights, 508
southeastern Brazil,
bat flies, 753
ectoparasites, 753
macronyssids, 753
spinturnicids, 753
Spain,
blanket dragging, 13
Ixodidae, 13
ticks, 13

spatial autocorrelation,
abiotic limits, 20
disease ecology, 20
path analysis, 20
spatio-temporal distribution,
Aedes crinifer, 991
Culex dolosus s.l., 991
Culex intrincatus, 991
wetland, 991
species complex,
COI, 272
Culex, 272
phylogeny, 272
taxonomy, 272
species group,
description, 146
Peru, 146
taxonomy, 146
Verrucarum, 146
species T and U,
Anopheles fluviatilis, 395
colonization, 395
malaria vector, 395
spectacled cobra,
Amblyomma, 504
Aponomma, 504
Indian rat snake, 504
spider bite,
bacteria, 382
hobo spider, 382
methicillin-resistant *Staphylococcus aureus*, 382
Tegenaria agrestis, 382
Spinturnicidae,
Erophylla sezekorni bombifrons, 758
nymphal stages, 758
Periglischrus cubanus, 758
Puerto Rico, 758
spinturnicids,
bat flies, 753
ectoparasites, 753
macronyssids, 753
southeastern Brazil, 753
spotted fever group,
Gulf Coast ticks, 687
infection, 687
Rickettsia, 687
Rickettsia parkeri, 687
stable fly, 876, 1128
house fly salivary gland hypertrophy virus, 1128
infective dose, 876
polymerase chain reaction, 1128
porcine reproductive and respiratory syndrome, 876
virus transmission, 876
Stegomyia,
Aedes, 212
cold hardiness, 212
Culicidae, 212
nondiapausing egg, 212
Stegomyia indices,
ovitrap monitoring, 1214
premises maintenance index, 1214
premises shading index, 1214
surveillance, 1214
sterile insect technique,
Anopheles arabiensis, 296
habitat conditioning, 296
interference, 296
mass rearing, 296
Stomoxys calcitrans, 53, 656
biological transmission, 656
cattle, 53
cytochrome *b*, 53
horse, 53
mechanical transmission, 656
PCR, 53
Pelecanus erythrorhynchos, 656
West Nile virus, 656
stormwater,
California, 1136
Culex tarsalis, 1136
Cx. quinquefasciatus, 1136
mosquitoes, 1136
subarctic zone,
avian *Plasmodium*, 904
blood-source, 904
Japan, 904
mosquito, 904
sugar feeding,
canyon fly, 188
diel activity, 188
Fannia conspicua, 188
host-seeking, 188
Suriname,
Anopheles darlingi, 1039
biting behavior, 1039
human odor, 1039
mosquito trapping, 1039
surveillance, 628, 1057, 1214
arbovirus, 628
CO_2 generator system, 1057
compressed CO_2, 1057
dipstick, 628
dry ice, 1057
ovitrap monitoring, 1214
Phlebotomus papatasi, 1057
premises maintenance index, 1214
premises shading index, 1214
rapid detection, 628
Stegomyia indices, 1214
susceptibility variability,
Chagas disease, 1167
insecticide resistance, 1167
pyrethroids, 1167
Triatoma infestans, 1167
sylvatic populations,
insecticide susceptibility, 828
Triatoma infestans, 828
synergy,
deltamethrin, 952
dinotefuran, 952
piperonyl butoxide, 952
resistance management, 952

T

T. dimidiata,
cuticular hydrocarbons, 262
taxonomy, 262
Taiwan,
Bartonella, 445
Ctenocephalides felis, 445
Rickettsia felis, 445
target management units,
Cochliomyia hominivorax, 280
livestock pest, 280
mitochondrial DNA, 280
phylogeography, 280
taxonomy, 146, 262, 272, 717
checklist, 717
COI, 272
Culex, 272
Culicidae, 717
cuticular hydrocarbons, 262
description, 146
illustrated larval key, 717
Peru, 146
phylogeny, 272
Saudi Arabia, 717
species complex, 272
species group, 146
T. dimidiata, 262
Verrucarum, 146
Tegenaria agrestis,
bacteria, 382
hobo spider, 382
methicillin-resistant *Staphylococcus aureus*, 382
spider bite, 382
temperature, 243, 411, 468, 974, 1202
adult longevity, 243
Aedes aegypti, 974
Aedes albopictus, 243
broilers, 1202
Campylobacter jejuni, 1202
climate, 468
climate change, 974
Culex restuans, 243
dengue, 974
early-phase transmission, 411
generalized linear model, 468
insecticide, 243
mosquito abundance, 468
Musca domestica, 1202
plague, 411
precipitation, 468
resource limitation, 974
retention time, 1202
Xenopsylla cheopis, 411
Yersinia pestis, 411
testosterone,
Dumetella carolinensis, 896
eastern equine encephalitis virus, 896
overwintering, 896
recrudescence, 896
Thailand, 334, 1023
Aedes aegypti, 334
Aedes albopictus, 334

bed bug, 1023
control, 1023
dengue, 334
insecticides, 1023
N, 334
N-diethyl-3-methylbenzamide, 334
resistance, 1023
thermal responses,
Aedes aegypti, 914
mechanistic model, 914
niche mapping, 914
tick, 13, 85, 101, 1120, 1257
Amasya, 85
Anaplasma phagocytophilum, 101
Bartonella, 1257
blacklegged tick, 1120
blanket dragging, 13
Borrelia species, 101
CCHFV, 85
Dermacentor, 1257
fleas, 101
formulation, 1120
human, 85
Ixodes scapularis, 1120
Ixodidae, 13
nootkatone, 1120
Peru, 1257
plague, 101
Rhipicephalus sanguineus, 1257
Spain, 13
Turkey, 85
tick bite protection,
Ixodes scapularis, 327
permethrin, 327
tick repellent clothing, 327
tick control,
Allium sativum, 822
Lippia graveolens, 822
Rhipicephalus microplus, 822
Rosmarinus officinalis, 822
tick repellent clothing,
Ixodes scapularis, 327
permethrin, 327
tick bite protection, 327
tick-borne disease, 441, 651, 884
Amblyomma americanum, 708
carbon dioxide trap sampling, 708
coinfections, 651
Dermacentor variabilis, 884
emerging pathogens, 441, 651
Germany, 441, 651
Ixodes, 441, 651
mark–recapture, 708
tularemia, 884
vector competency, 884
vector efficiency, 884
tick-borne encephalitis virus,
cofeeding, 615
Ixodes ticks, 615
microclimate, 615
small mammals, 615
time,
Culiseta melanura, 909
Latin square, 909
resting shelters, 909
tissue tropisms,
Culex flavivirus, 1031
Culex pipiens, 1031
flavivirus, 1031
transovarial transmission, 1031
toxicity, 322, 1160
acaricide, 322
Amblyomma americanum, 322
aromatic amides, 1160
Dermacentor variabilis, 322
insect repellent, 1160
Ixodes scapularis, 322
nootkatone, 322
Rhipicephalus sanguineus, 322
Toxorhynchites rutilus,
Aedes albopictus, 526
Aedes japonicus, 526
antipredatory behavior, 526
Culex pipiens, 526
transmission, 608, 867, 891, 1197
acquisition, 891
amplification, 867
avian influenza virus, 608
Borrelia hermsii, 891
house fly, 608
hydrology, 867
insect carrier, 608
Kenya, 1197
meteorology, 867
Musca domestica, 608
Ornithodoros hermsi, 891
relapsing fever spirochetes, 891
vector competence, 1197
West Nile virus, 867
transmission cycle,
avian malaria, 600
bloodmeal, 600
mosquito, 600
polymerase chain reaction, 600
transmission dynamics,
host aggregation, 1210
mosquito-borne disease transmission, 1210
per-capita feeding rate, 1210
transovarial transmission,
Culex flavivirus, 1031
Culex pipiens, 1031
flavivirus, 1031
tissue tropisms, 1031
Triatoma infestans, 372, 828, 929, 1167
Chagas disease, 929, 1167
deltamethrin, 929
hemolymphagy, 372
horizontal transfer, 929
insecticide resistance, 1167
insecticide susceptibility, 828
paralyzing activity, 372
pyrethroids, 1167
saliva, 372
secondary exposure, 929
susceptibility variability, 1167
sylvatic populations, 828
triatomine, 372
Triatoma sanguisuga, 806, 1091
biogeography, 806
Chagas disease, 1091
cytochrome oxidase II, 806
Georgia, 806
kissing bugs, 1091
triatomines, 1091
Trypanosoma cruzi, 1091
Triatominae,
Chagas, 775
life-history traits, 775
population growth, 775
population parameters, 775
triatomine, 372, 705, 1091
Chagas disease, 1091
experimental hybrids, 705
hemolymphagy, 372
kissing bugs, 1091
paralyzing activity, 372
Phyllosoma complex, 705
reproductive isolation, 705
saliva, 372
Triatoma infestans, 372
Triatoma sanguisuga, 1091
Trypanosoma cruzi, 1091
tropical rain forest,
Amazonas, 173
distribution, 173
diversity, 173
forest fragments, 173
Trypanosoma cruzi,
Chagas disease, 1091
kissing bugs, 1091
Triatoma sanguisuga, 1091
triatomines, 1091
trypsin,
Aedes taeniorhynchus, 546
bloodmeal, 546
development, 546
mRNA expression, 546
tularemia,
Dermacentor variabilis, 884
tick-borne diseases, 884
vector competency, 884
vector efficiency, 884
Turkey,
Amasya, 85
CCHFV, 85
human, 85
ticks, 85

U

ultrastructure,
Lutzomyia, 489
pheromone gland development, 489
pheromone production, 489
sand flies, 489

V

vanillin,
  binary mixtures, 61
  natural mosquito repellent, 61
  Zanthoxylum armatum, 61
  Zanthoxylum piperitum, 61
vector,
  cytochemistry, 496
  insect, 496
  morphology, 496
  reproductive tract, 496
vector competence, 389, 1197
  antiviral, 389
  diverticula bacteria, 389
  Kenya, 1197
  La Crosse virus, 389
  midgut bacteria, 389
  transmission, 1197
vector competency,
  Dermacentor variabilis, 884
  tick-borne diseases, 884
  tularemia, 884
  vector efficiency, 884
vector control, 305, 351, 577
  Aedes aegypti, 577
  Anopheles gambiae, 305
  Beauveria bassiana, 305
  bluetongue, 351
  Butox 7.5 pour-on, 351
  community participation, 577
  Culicoides, 351
  deltamethrin, 351
  entomopathogenic fungi, 305
  fumigant tablet, 577
  house screening, 305
vector *Culicoides* spatial distribution,
  animal export, 634
  bluetongue viruses, 634
  Culicoides, 634
  epidemiology, 634
vector efficiency,
  Dermacentor variabilis, 884
  tick-borne diseases, 884
  tularemia, 884
  vector competency, 884
vector-borne diseases,
  host-feeding pattern, 1076
  modeling, 1076
  mosquitoes, 1076
vectorial capacity,
  lone star ticks, 461
  Rickettsia rickettsii, 461
  Rocky Mountain spotted fever, 461
Verrucarum,
  description, 146
  Peru, 146
  species group, 146
  taxonomy, 146
virus transmission,
  infective dose, 876
  porcine reproductive and respiratory syndrome, 876
  stable fly, 876
visceral leishmaniasis,
  cytochrome b, 1016
  Leishmania infantum, 1016
  Lutzomyia longipalpis, 1016
  population genetics, 1016
VSV,
  leishmaniasis, 1103
  Lutzomyia, 1103
  Phlebotominae, 1103
  public health, 1103

W

weather,
  Aedes vexans, 669
  Culex tarsalis, 669
  land cover, 669
  West Nile virus, 669
West Indies,
  Amblyomma variegatum, 485
  Caribbean, 485
  Ehrlichia ruminantium, 485
  heartwater, 485
West Nile virus, 398, 656, 669, 701, 867, 1047
  Aedes vexans, 669, 1047
  amplification, 867
  arbovirus vector, 701
  biological transmission, 656
  Culex pipiens, 398, 1047
  Culex restuans, 1047
  Culex tarsalis, 669
  ecology, 701
  hydrology, 867
  land cover, 669
  mechanical transmission, 656
  meteorology, 867
  mosquito, 701
  mosquito feeding, 398
  Pelecanus erythrorhynchos, 656
  reservoir host, 701
  sentinel pheasants, 1047
  Stomoxys calcitrans, 656
  transmission, 867
  weather, 669
wetland,
  Aedes crinifer, 991
  Culex dolosus s.l., 991
  Culex intrincatus, 991
  spatio-temporal distribution, 991
wing,
  Culicoides, 129
  cytochrome oxidase subunit I gene, 129
  geometric morphometrics, 129
winter emergence,
  eastern equine encephalitis, 967
  mosquito, 967
  overwintering, 967
Wolbachia, 76, 1008
  Aedes polynesiensis, 1008
  anthropophily, 76
  cytoplasmic incompatibility, 1008
  incompatible insect technique, 1008
  mosquito, 76
  population replacement, 1008
  reproduction, 76
wrapping,
  colonization, 1236
  flies, 1236
  monkey carcass, 1236
  oil palm plantation, 1236

X

Xenopsylla cheopis,
  early-phase transmission, 411
  plague, 411
  temperature, 411
  Yersinia pestis, 411

Y

Yersinia pestis,
  early-phase transmission, 411
  plague, 411
  temperature, 411
  Xenopsylla cheopis, 411

Z

Zanthoxylum armatum,
  binary mixtures, 61
  natural mosquito repellent, 61
  vanillin, 61
  Zanthoxylum piperitum, 61
Zanthoxylum piperitum,
  binary mixtures, 61
  natural mosquito repellent, 61
  vanillin, 61
  Zanthoxylum armatum, 61
zoonosis,
  agent-based model, 1189
  arbovirus, 1189
  insecticide, 1189
  mosquito, 1189
zoonotic disease,
  Acari, 422
  Lyme disease, 422
  parasitism, 422
  pathogen transmission, 422
zooplankton,
  competition, 554
  development, 554
  mosquito larvae, 554
  oviposition, 554